

# 9 Appendices

## 9.1 Maqdepth2pileup.pl

=head1 SYNOPSIS

Takes a maq pileup file as input, get depth information out of it.

The output can be loaded as user plot in Artemis, output contains read depths for different strands.

=head1 AUTHORS

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=cut

use strict;

sub show\_help {

    die <<EOF;

    \$0: take maq pileup file as input, get depth information out of it.

    The output can be loaded as user plot in artemis.

Output contains depths for different strands.

Usage: \$0 maq\_pileup\_file > output

EOF

}

my \$infile = shift;

my \$prefix = shift;

unless (\$infile) {

    &show\_help;

    exit;

}

warn "\n\nreading input file...\n\n";

open(IN, \$infile) or die;

while (<IN>) {

    chomp;

    my @fields = split /\t/, \$\_;

    my \$pos = \$fields[1];

    my \$depth = \$fields[3];

    my \$read\_bases = substr(\$fields[4],1);

    my @read\_bases\_array = split //, \$read\_bases;

my \$depth\_fwd = "";

my \$depth\_rev = "";

foreach my \$character (@read\_bases\_array) {

    if (\$character =~ /[ACGT\,]/) {

        \$depth\_fwd++;

```

    }
    elsif ($character =~ /[acgt\.\.]/) {
        $depth_rev++;
    }
}
if (!$depth_rev) {
    $depth_rev = 0;
}
if (!$depth_fwd) {
    $depth_fwd = 0;
}
print "$depth_fwd $depth_rev\n";
}
close IN;
exit;

```

## 9.2 extractLines.pl

```
#!/usr/local/bin/perl
```

```
=head1 NAME
```

```
extractLines.pl
```

```
=head1 SYNOPSIS
```

Read in a file and output only the lines in a specified region.

```
=head1 AUTHORS
```

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```
=head1 COPYRIGHT
```

```
=head1 BUGS
```

if you witness any bug please contact the authors

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=cut

```
use Getopt::Long;
```

```
sub show_help {
```

```
    print STDERR <<EOF;
```

```
$0: Read in a file and output only the lines in a specified region.
```

```
Usage: $0 -i input_file -start linenum -stop linenum > output\n
```

```
EOF
```

```
}
```

```
    &GetOptions( "i=s"=>\$inputfile,
```

```
                "start=i"=>\$start,
```

```
                "stop=i"=>\$stop,
```

```
                "h"=>\$help,
```

```
                "help"=>\$help);
```

```
    if( $help ) {
```

```
        &show_help();
```

```
        exit(1);
```

```
    }
```

```

$line=0;
open (IN,$inputfile) or die ("Couldn't find input file $inputfile\n");
while ($x=<IN>) {
    $line++;
    if ($line >= $start && $line <=$stop) {
        print $x;
    }
}
close IN;
END:

```

### 9.3 tram.pl

```

#!/usr/local/bin/perl -w

use strict;

use warnings;

#use lib '/nfs/team81/tk2/snp_analysis/latest/SNP_analysis/';

#use SNP_analysis;

use lib '/nfs/team81/sa4/3D7/transcriptome/scripts';

use TrAM;

#####

#This script will find various statistical measures for a given region on a chromosome

#This is a transcriptome analysis module

#USAGE:   tram.pl      <gff_file>    <coverage_file>    <uniqueness_file>
<uniqueness_cutoff>

# <gff_file> : Gff annotation file for a single chromosome

# <coverage_file> : coverage file for a single chromosome

# <uniqueness_file>: a single column file generated by a k-mer analysis

```

```

# <uniqueness_cutoff>: integer value that determines which bases to consider for
further analysis\n";

#

#

#

#####

use POSIX qw(ceil floor);

if (@ARGV != 6)
{
    print "USAGE:  tram.pl    <gff_file>  <coverage_file>  <uniqueness_file>
<uniqueness_cutoff> <coverage> <genome si
ze>\n";

    exit;
}

TrAM::ComputeGmeansGff($ARGV[0],$ARGV[1],          $ARGV[2],$ARGV[3],
$ARGV[4], $ARGV[5]);

```

## 9.4 LIMMA Analysis for Illumina data

```

library(limma)

library(vsn)

readExprs <- function(fileNames) {
    rd <- function (fn) {
        read.table(fn, sep = "\t", header = TRUE, row.names = 1,
            colClasses = c("character", "numeric", "numeric",
                "character", "numeric", "numeric", "numeric",
                "numeric", "numeric"))
    }
}

```

```

}
rc <- function(x) {
  x$DepthAMean
}
tables <- lapply(fileNames, rd)
expr <- cbind(sapply(tables, rc))
rownames(expr) <- rownames(tables[[1]])
expr
}
plotStdDevMedian <- function(matrix, targets, sample) {
  cols <- targets$sample == sample
  subset <- cbind(matrix[TRUE, cols])
  sd <- apply(subset, 1, sd)
  median <- apply(subset, 1, median)

  plot(sd, median,
       main = paste("Std. dev vs. median for replicates of", sample))
}
plotRawDepth <- function(matrix, targets) {
  ## par(mfrow = c(nrow(targets), nrow(targets)))
  par(ask = TRUE)
  sample <- targets$sample
  lane <- targets$lane
  for (i in 1:nrow(targets)) {
    for (j in 1:nrow(targets)) {
      plot(matrix[TRUE, i], matrix[TRUE, j],
           main = paste(sample[i], "vs", sample[j]),

```

```

        xlab = lane[i],
        ylab = lane[j])
    }
}
}

targets <- read.table("s_enterica_typhi_ty2_ompr_targets.txt", sep = "\t",
                    header = TRUE)

fileNames <- as.character(targets$fileName)
expr <- readExprs(fileNames)
colnames(expr) <- paste(targets$lane, targets$sample, sep = ".")
png(filename = "mean_depth_hist.png", width = 800, height = 600)
par(mfrow = c(4, 3))
for (colname in colnames(expr)) {
  hist(expr[TRUE, colname],
        freq = FALSE,
        main = colname,
        xlab = "Mean depth / bp",
        ylab = "Frequency")
}
dev.off()

texpr <- justvsns(expr)
png(filename = "mean_depth_t_hist.png", width = 800, height = 600)
par(mfrow = c(4, 3))
for (colname in colnames(texpr)) {
  x <- texpr[ TRUE, colname]
  hist(x,
        main = colname,

```

```

    xlab = "t Mean depth / bp",
    ylab = "Frequency")
}
dev.off()
png(filename = "mean_depth_t_box.png", width = 1000, height = 600)
par(cex = 0.7)
boxplot(texpr ~ col(texpr),
        main = "Boxplots of raw data",
        names = colnames(texpr))
dev.off()
texpr <- texpr[TRUE, c(2, 4, 5, 6, 8, 9, 10)]
colnames(texpr) <- (colnames(expr))[c(2, 4, 5, 6, 8, 9, 10)]
png(filename = "mean_depth_t_subset_box.png", width = 1000, height = 600)
par(cex = 0.7)
boxplot(texpr ~ col(texpr),
        main = "Boxplots of raw data",
        names = colnames(texpr))
dev.off()
png(filename = "mean_depth_t_subset_ma.png", width = 800, height = 800)
mva.pairs(texpr,
          log.it = FALSE,
          main = "M (t value ratio) vs A (average log2 values)",
          labels = colnames(texpr),
          cex = 0.7)
dev.off()
norm <- normalizeQuantiles(texpr)
png(filename = "mean_depth_t_norm_box.png", width = 800, height = 600)

```

```

par(cex = 0.7)

boxplot(norm ~ col(norm),
        main = "Boxplots of quantile normalized data",
        names = colnames(norm))

dev.off()

png(filename = "mean_depth_t_norm_ma.png", width = 800, height = 800)

mva.pairs(norm,
          log.it = FALSE,
          main = "M (log2 value ratio) vs A (average log2 values)",
          labels = colnames(norm),
          cex = 0.7)

dev.off()

sampleGroups <- targets$sample[c(2, 4, 5, 6, 8, 9, 10)]

exptDesign <- model.matrix(~ 0 + sampleGroups)

colnames(exptDesign) <- levels(sampleGroups)

contrasts <- makeContrasts('mut-wt', levels = exptDesign)

fit <- lmFit(norm, exptDesign)

efit <- eBayes(contrasts.fit(fit, contrasts))

annot <- read.table("s_enterica_typhi_ty2.table.1.txt", sep = "\t",
                  header = TRUE,
                  colClasses = c("character", "character",
                                "character", "numeric", "numeric", "numeric",
                                "character", "character", "character"))

table <- topTable(efit, n = 1000)

table2 <- merge(table, annot, by.x = "ID", by.y = "ID.0", sort = FALSE)

write.table(table2, "s_enterica_typhi_ty2.diff.expr.txt",

```

```

    sep = "\t", quote = FALSE, col.names = NA)

eucDist <- dist(t(norm))

eucClust <- hclust(eucDist)

png(filename = "cluster_norm_euclid_dist.png", width = 800, height = 800)

plot(eucClust, hang = -1)

dev.off()

pearsDist <- as.dist(1 - cor(norm))

pearsClust <- hclust(pearsDist)

png(filename = "cluster_norm_pearson_dist.png", width = 800, height = 800)

plot(pearsClust, hang = -1)

dev.off()

batches <- targets$batch[c(2, 4, 5, 6, 8, 9, 10)]

batchNorm <- cbind(normalizeQuantiles(texpr[TRUE, batches == 1]),
                  normalizeQuantiles(texpr[TRUE, batches == 2]),
                  texpr[TRUE, batches == 3],
                  texpr[TRUE, batches == 4])

colnames(batchNorm) <- colnames(texpr)

png(filename = "mean_depth_t_batch_norm_box.png", width = 800, height = 600)

par(cex = 0.7)

boxplot(batchNorm ~ col(batchNorm),
        main = "Boxplots of batch quantile normalized data",
        names = colnames(batchNorm))

dev.off()

exptDesign <- model.matrix(~ 0 + sampleGroups + batches)

colnames(exptDesign) <- c("mut", "wt", "batch")

contrasts <- makeContrasts('mut-wt', levels = exptDesign)

fit <- lmFit(batchNorm, exptDesign)

```

```

efit <- eBayes(contrasts.fit(fit, contrasts))

table <- topTable(efit, n = 1000)

table2 <- merge(table, annot, by.x = "ID", by.y = "ID.0", sort = FALSE)

write.table(table2, "s_enterica_typhi_ty2.batch.diff.expr.txt",
            sep = "\t", quote = FALSE, col.names = NA)

```

## 9.5 Hypothetical gene sequence coverage

<b>CDS</b>	<b>WT1</b>	<b>WT2</b>	<b>WT3</b>	<b>Average</b>
t0005	0.17	0.32	0.32	0.27
t0006	0.21	0.2	0.11	0.17
t0009	0.45	0.38	0.27	0.37
t0010	0.1	0.05	0.08	0.08
t0011	0	0	0	0
t0014	0.05	0.12	0.06	0.08
t0015	0	0.06	0	0.02
t0016	0	0	0	0
t0017	0	0.05	0.22	0.09
t0018	0.05	0.03	0.1	0.06
t0019	0	0.04	0.11	0.05
t0020	0.01	0.07	0.19	0.09
t0021	0.03	0.02	0	0.02
t0029	0.1	0.13	0.25	0.16
t0030	0	0.17	0.29	0.15
t0031	0.42	1.16	2.83	1.47
t0032	0	0.05	0.24	0.1
t0033	0	0.25	0.02	0.09
t0034	0.12	0.21	0.21	0.18
t0035	0.1	0.19	0.25	0.18
t0036	0.05	0.14	0.13	0.11
t0037	0.1	0.06	0.25	0.14
t0038	0.21	0.08	0.35	0.21
t0039	0	0.04	0.14	0.06
t0040	0.43	0.21	0.56	0.4
t0043	0.06	0.09	0.15	0.1
t0044	0.09	0.16	0.12	0.12
t0046	0.3	1.58	0.16	0.68
t0047	2.31	4.03	3.41	3.25
t0050	0.05	0.16	0.1	0.1
t0052	0.12	0.53	0.39	0.35
t0053	0.36	0.32	0.38	0.35
t0072	0.09	0.21	0.16	0.15
t0074	0.02	0.06	0.06	0.05
t0075	0.06	0.08	0.27	0.14
t0080	0.18	0.11	0.66	0.32
t0081	0	0.1	0.49	0.2
t0082	0.27	0.68	0.38	0.44
t0083	0	0	0.44	0.15

t0084	0.12	0.29	0.26	0.22
t0085	0	0	0.27	0.09
t0087	0.08	0	0.1	0.06
t0088	0.12	0.14	0.24	0.17
t0099	0.12	0.16	0.24	0.17
t0101	0.77	0.83	0.17	0.59
t0101	0.77	0.83	0.17	0.59
t0102	0.54	0.33	0.62	0.5
t0103	4.62	4.51	8.82	5.98
t0103	4.62	4.51	8.82	5.98
t0104	0	0	0.07	0.02
t0110	0.09	0.05	0.45	0.2
t0111	0.15	0.14	0.24	0.18
t0113	0.2	0.1	0.26	0.19
t0119	0	0.05	0.26	0.1
t0122	4.19	2.36	4.36	3.64
t0123	0.3	0.65	0.74	0.56
t0124	0.16	0.6	0.97	0.58
t0139	0.09	0.32	0.43	0.28
t0142	0.13	0.14	0.16	0.14
t0143	0.27	0.28	0.39	0.31
t0144	0.33	0.06	0.72	0.37
t0145	0.3	0.12	0.14	0.19
t0146	0.09	0.24	0.24	0.19
t0155	0.09	0	0.04	0.04
t0157	1.32	1.01	0.62	0.98
t0158	5.78	16.49	14.93	12.4
t0159	3.16	2.36	3.51	3.01
t0160	56.12	22.29	149.83	76.08
t0161	0.23	0.25	0.16	0.21
t0162	0.03	0.05	0.41	0.16
t0163	0.15	0.14	0.25	0.18
t0165	0.4	0.31	0.51	0.41
t0167	0.01	0.04	0.07	0.04
t0169	0.22	0.09	0.12	0.14
t0172	0.05	0.12	0.07	0.08
t0173	0.13	0.15	0.44	0.24
t0178	0.14	0.13	0.1	0.12
t0179	1.02	0.69	0.42	0.71
t0180	1.39	1.14	1.71	1.41
t0184	0.7	0.47	0.93	0.7
t0185	0.12	0.36	0.5	0.33
t0186	0.43	1.06	1.54	1.01
t0187	0.32	0.08	0.23	0.21
t0190	0.08	0	0.4	0.16
t0204	0.09	0.05	0.31	0.15
t0205	0.59	0.56	1.29	0.81
t0206	2.86	1.41	2.68	2.32
t0211	2.33	1.13	3.69	2.38
t0212	1.62	2.43	1.55	1.87
t0213	5.67	1.82	9.52	5.67
t0224	0.12	0.26	0.25	0.21
t0236	3.16	2.54	5.68	3.79

t0237	0.06	0.12	0.02	0.07
t0240	0.21	0.31	0.65	0.39
t0241	0.2	0.29	0.12	0.2
t0242	0.06	0.21	0.15	0.14
t0246	0.19	0.22	0.34	0.25
t0248	0.61	1.97	1.8	1.46
t0249	0.17	0.31	0.32	0.27
t0250	0.17	0.16	0.32	0.22
t0251	0.42	0.48	2.06	0.99
t0255	0	0.2	0	0.07
t0257	0.51	0.5	0.17	0.39
t0259	0.24	0.15	0.27	0.22
t0260	1.45	0.73	0.53	0.9
t0262	0.39	0.54	0.49	0.47
t0264	0.06	0.28	0	0.11
t0265	0	0.04	0.19	0.08
t0266	0.06	0.21	0.26	0.18
t0268	0.21	0.18	0.17	0.19
t0279	0.1	0.16	0.24	0.17
t0281	1.81	2.09	4.57	2.82
t0281	10.01	2.25	1.11	4.46
t0282	0.09	0.36	0.75	0.4
t0283	0.02	0.1	0.03	0.05
t0284	0.15	0.12	0.38	0.22
t0285	0.33	0.19	0.35	0.29
t0286	0.21	0.1	0.14	0.15
t0287	0.07	0.06	0.16	0.1
t0288	0.08	0.12	0.47	0.22
t0289	0.12	0	0.11	0.08
t0290	0.11	0.1	0.06	0.09
t0292	0.25	0.08	0.21	0.18
t0293	0.05	0.25	0.21	0.17
t0294	0.09	0.48	0.41	0.33
t0296	0.77	0.39	1	0.72
t0298	0.46	0.26	0.53	0.42
t0302	0.42	0.13	0.68	0.41
t0304	0.04	0.04	0.25	0.11
t0305	0.1	0.09	0.37	0.19
t0306	0.23	0.39	0.7	0.44
t0307	0.17	0.35	0.52	0.35
t0308	0.32	0.28	0.75	0.45
t0309	0.6	0.36	1.21	0.72
t0311	1.19	0.47	1.38	1.01
t0312	0.48	0.25	2	0.91
t0313	0.46	1.49	2.32	1.42
t0315	0.42	0.66	2.12	1.07
t0318	24.21	20.01	77.3	40.51
t0319	0.99	2.99	2.04	2.01
t0322	0.72	0.25	0.61	0.53
t0323	0.2	0.28	0.47	0.32
t0324	0.14	0.11	0.19	0.15
t0326	0.03	0.06	0.16	0.08
t0327	0.28	0.11	0.2	0.2

t0328	0.03	0.03	0.07	0.04
t0329	0.14	0.03	0.34	0.17
t0331	0.22	0.54	0.22	0.33
t0332	0.25	0.44	0.44	0.38
t0335	0.47	0.72	0.84	0.68
t0336	0.02	0.2	0.24	0.15
t0337	0.07	0.2	0.08	0.12
t0338	0.11	0	1.04	0.38
t0339	0.02	0.1	0.14	0.09
t0340	0	0.18	0.16	0.11
t0341	0.07	0.11	0.17	0.12
t0342	0.05	0.06	0.15	0.09
t0343	0.11	0.11	0.11	0.11
t0344	0.06	0.06	0.18	0.1
t0348	13.47	7.64	48.29	23.13
t0349	0.67	4.14	4.05	2.95
t0350	0.22	0.2	0.43	0.28
t0351	0.13	0.09	0.31	0.18
t0351	0.13	0.09	0.31	0.18
t0352	5.93	4.53	1.72	4.06
t0353	0	0.31	0	0.1
t0354	0.14	0.29	0.49	0.31
t0361	0.68	1.29	1.1	1.02
t0363	0.44	0.72	0.56	0.57
t0364	0.11	0.11	0.16	0.13
t0365	0.07	0.16	0.22	0.15
t0366	0.15	0.11	0.17	0.14
t0367	0.93	0.28	1.27	0.83
t0371	0.35	0.65	0.71	0.57
t0373	0.24	0.2	0.26	0.23
t0374	0.41	0.18	0.35	0.31
t0375	0.87	0.24	0.53	0.55
t0377	0.24	0.58	0.86	0.56
t0378	0.25	0.12	0.66	0.34
t0380	0.02	0.06	0.1	0.06
t0381	0.36	0.38	0.58	0.44
t0382	0.52	0.25	0.21	0.33
t0383	0.09	0.13	0.18	0.13
t0384	1.81	0.38	1.8	1.33
t0389	0	0.07	0	0.02
t0390	0.1	0	0.06	0.05
t0391	0.03	0.05	0	0.03
t0392	0.06	0.05	0.16	0.09
t0393	0.05	0.04	0.15	0.08
t0394	0.03	0.17	0.13	0.11
t0395	0	0.03	0.09	0.04
t0396	0.1	0	0.07	0.06
t0397	0.02	0.04	0.11	0.06
t0398	0.09	0.06	0.28	0.14
t0399	0	0.03	0.21	0.08
t0405	0.5	0.29	0.56	0.45
t0406	0.07	0.13	0.05	0.08
t0408	0.19	0.42	0.3	0.3

t0409	0.3	0.46	0.86	0.54
t0410	0.23	0.11	0.07	0.14
t0411	0.06	0.11	0.05	0.07
t0412	0.18	0.59	0.76	0.51
t0413	0.9	1.46	1.94	1.43
t0419	0.22	0.13	0.21	0.19
t0420	0.23	0.16	0.15	0.18
t0421	0.06	0.14	0.05	0.08
t0422	0.1	0.18	0.4	0.23
t0425	0.47	1.4	0.81	0.89
t0425	0.47	1.4	0.81	0.89
t0428	0.13	0.27	0.13	0.18
t0430	0.35	0.37	0.29	0.34
t0432	0.84	0.14	0.16	0.38
t0433	0.08	0.08	0.39	0.18
t0434	0	0.03	0.25	0.09
t0443	0.37	0.27	0.36	0.33
t0444	0.32	0.27	0.4	0.33
t0447	0.08	0.12	0.3	0.17
t0450	0.23	0.27	0.09	0.2
t0451	0.18	0.1	0.06	0.11
t0452	0.16	0.04	0.17	0.12
t0453	0.23	0	0.29	0.17
t0455	0.13	0.17	0.36	0.22
t0457	0.08	0.09	0.13	0.1
t0458	0.15	0	0.34	0.16
t0464	0.2	0.18	0.12	0.17
t0465	0.05	0.26	0.27	0.19
t0466	0.01	0.57	0.23	0.27
t0469	0.11	0	0	0.04
t0471	0.03	0.07	0.23	0.11
t0474	0.05	0.32	0.37	0.25
t0475	0.15	0.1	0.77	0.34
t0476	0.22	0.15	0.5	0.29
t0478	0.53	0.1	0.5	0.38
t0479	0.14	0.67	0.63	0.48
t0482	0.3	0.18	0.23	0.24
t0483	0.04	0.06	0.56	0.22
t0484	0	0.07	0	0.02
t0485	0.16	0.13	0.17	0.15
t0487	0.15	0.13	0.15	0.14
t0488	0.05	0.34	0.06	0.15
t0489	0	0	0	0
t0490	0	0	0.12	0.04
t0490	0	0	0.12	0.04
t0491	0.06	0.06	0.17	0.1
t0492	0.17	0.1	0.08	0.12
t0495	0.3	0.28	0.35	0.31
t0503	0.12	0.49	0.39	0.33
t0504	0	0.08	0.1	0.06
t0505	0.51	0.28	0.36	0.38
t0506	0.13	0.12	0.22	0.16
t0507	0.07	0.07	0.21	0.12

t0508	0.17	0.08	0.32	0.19
t0514	0.31	0.16	0.47	0.31
t0515	0.39	0.56	0.32	0.42
t0516	0.17	0.25	0.23	0.22
t0517	0.24	0.69	0.44	0.46
t0518	0.48	0.41	0.34	0.41
t0519	0.75	0.32	0.2	0.42
t0520	0.38	0.44	0.76	0.53
t0521	0.23	0.09	0.73	0.35
t0522	0.11	0.14	0.55	0.27
t0523	0.12	0.19	1.56	0.62
t0524	0.12	0.19	0.73	0.35
t0525	0.95	0.49	1.33	0.92
t0528	0	0.19	0.21	0.13
t0529	0.23	1.1	0.63	0.65
t0530	0.09	0.02	0.07	0.06
t0531	0.13	0.09	0.14	0.12
t0532	0.37	0.45	0.05	0.29
t0533	0.26	0.56	0.97	0.6
t0534	0.82	0.74	0.74	0.77
t0535	0.16	0.42	0.2	0.26
t0536	15.06	24.82	14.86	18.25
t0537	32.29	32.91	23.43	29.54
t0539	60.06	63.58	80.48	68.04
t0540	17.33	13.99	25.98	19.1
t0541	16.28	8.22	11.54	12.01
t0542	6.89	6.77	6.64	6.77
t0543	15.61	14.27	17.92	15.93
t0544	10.49	5.73	7.99	8.07
t0545	10.28	10.08	7.2	9.19
t0546	9.7	6.49	8.91	8.37
t0547	9.26	11.52	9.25	10.01
t0548	4.8	1.86	2.39	3.02
t0549	1.92	6.43	5.99	4.78
t0550	0.16	0.19	0.09	0.15
t0551	0.15	0.29	0.39	0.28
t0552	0	0.59	0.42	0.34
t0555	0.1	0.19	0.17	0.15
t0560	12.94	16.73	36.81	22.16
t0561	1.77	0.67	0.76	1.07
t0563	0.22	0.23	0.29	0.25
t0564	0.35	0.54	0.46	0.45
t0565	0.61	0.91	0.62	0.71
t0566	0.56	1.21	0.73	0.83
t0568	0.38	0.36	0.59	0.44
t0569	0.6	0.5	0	0.37
t0570	0.11	0.15	0.35	0.2
t0571	0	0.11	0.08	0.06
t0572	0.17	0.13	0.94	0.41
t0573	0.12	0.07	0.33	0.17
t0574	0.06	0.24	0.28	0.19
t0575	0	0.44	0	0.15
t0576	0.06	0.22	0.16	0.15

t0577	0	0.42	0	0.14
t0578	18.19	9.49	31.6	19.76
t0579	16.44	11.51	52.71	26.89
t0580	16.01	18.3	42.97	25.76
t0583	0.5	0.71	0.96	0.72
t0584	0.08	0.11	0.21	0.13
t0585	0	0.21	0	0.07
t0585	0.88	3.48	1.7	2.02
t0589	0	0.05	0.1	0.05
t0589	0	0.05	0.1	0.05
t0590	0	0.07	0.05	0.04
t0591	0	0.06	0.21	0.09
t0596	0.18	0.34	0.25	0.26
t0601	0.1	0.19	0.32	0.2
t0603	0	0.04	0	0.01
t0604	0.54	0.86	0.94	0.78
t0605	0.51	0.91	1.39	0.94
t0606	0.44	0.16	0.8	0.47
t0607	0.2	0.11	0.21	0.17
t0608	1.03	0.64	3.73	1.8
t0609	2.18	2.6	5.68	3.49
t0614	0	0	0	0
t0615	0	0	0	0
t0617	0	0	0	0
t0618	5.68	9.14	7.93	7.58
t0619	0	0	0	0
t0621	0	0.06	0.26	0.11
t0626	0.13	0.22	0.13	0.16
t0627	0.02	1.37	0.45	0.61
t0629	0.38	0.54	0.57	0.5
t0631	0.08	0.12	0.14	0.11
t0634	5.94	12.8	41.1	19.95
t0635	0.19	0.06	0.63	0.29
t0636	0.46	0.19	0.35	0.33
t0637	0.06	0.2	0.27	0.18
t0638	0.17	0.27	0.44	0.29
t0639	0.03	0.18	0.12	0.11
t0641	1.5	3.77	0.66	1.98
t0642	0.41	1.06	1.76	1.08
t0643	0.21	0.14	0.24	0.2
t0645	0.36	1.74	0.58	0.89
t0646	0	0.2	0.24	0.15
t0647	0	0.07	0.25	0.11
t0649	1.07	0.45	2.21	1.24
t0653	0.96	0.42	1.55	0.98
t0654	0.23	0.17	0.04	0.15
t0657	0.04	0.09	0.33	0.15
t0657	0.04	0.09	0.33	0.15
t0658	0.06	0.16	0.03	0.08
t0659	0.17	0.08	0.16	0.14
t0660	2.71	1.17	1.28	1.72
t0661	1.93	2.22	2.63	2.26
t0663	0.1	0.08	0.08	0.09

t0668	0.28	0.23	0.37	0.29
t0668	0.28	0.23	0.37	0.29
t0669	0.15	0.13	0.47	0.25
t0670	0.55	1.05	0.58	0.73
t0674	0	0	0.08	0.03
t0675	0.15	0.17	0.03	0.12
t0676	0.02	0.05	0.04	0.04
t0677	0.05	0.11	0.21	0.12
t0680	0.08	0.04	0.12	0.08
t0681	0.05	0.05	0.22	0.11
t0682	0.46	0	0	0.15
t0683	0.1	0.03	0.05	0.06
t0684	0.03	0.06	0.22	0.1
t0685	0.15	0.04	0.05	0.08
t0686	0.19	0.12	0.23	0.18
t0687	0.25	0.05	0.17	0.16
t0688	9.41	9.65	25	14.69
t0690	0	0	0.14	0.05
t0692	0.12	0.06	0.31	0.16
t0693	1.26	0.38	1.01	0.88
t0694	0	0.4	0.28	0.23
t0695	0.22	0.03	0.24	0.16
t0696	0.35	0.2	0.15	0.23
t0697	0	0.13	0.22	0.12
t0698	0.21	0.22	0.41	0.28
t0699	0.44	0.5	0.79	0.58
t0700	0.05	0.53	1.12	0.57
t0702	0.21	1.15	0.39	0.58
t0703	0.01	0.76	0.48	0.42
t0704	0	0.17	0.06	0.08
t0705	0	0.04	0.04	0.03
t0707	0	0.13	0	0.04
t0708	0.88	0.9	0.51	0.76
t0711	0.22	0.06	0.12	0.13
t0712	0.14	0.1	0.38	0.21
t0713	0.07	0.1	0	0.06
t0714	0.09	0.09	0.12	0.1
t0715	0.42	0.31	0.42	0.38
t0716	0.03	0.05	0	0.03
t0716	0.03	0.05	0	0.03
t0717	0	0.36	0	0.12
t0718	0	0.2	0.59	0.26
t0719	0.16	0.44	0.14	0.25
t0720	0.02	0.16	0.2	0.13
t0721	0.11	0.08	0.16	0.12
t0722	0	0	0	0
t0723	0	0.03	0	0.01
t0724	0.06	0	0.3	0.12
t0725	0	0.15	0	0.05
t0727	0	0	0.48	0.16
t0728	0	0	0.13	0.04
t0729	0	0.06	0	0.02
t0730	0	0.09	0.11	0.07

t0731	0	0.18	0.1	0.09
t0732	0	0	0	0
t0733	0	0	0.07	0.02
t0734	0	0.05	0.11	0.05
t0735	0	0.09	0.13	0.07
t0736	0.44	0.16	0.3	0.3
t0737	0.17	0.07	0.13	0.12
t0738	0.13	0.09	0.31	0.18
t0739	0.05	0.05	0.55	0.22
t0740	0	0.1	0.03	0.04
t0741	0.03	0.09	0.04	0.05
t0742	0.35	0.13	0.28	0.25
t0743	0.08	0.1	0.04	0.07
t0744	0.07	0.07	0.26	0.13
t0745	0.11	0.07	0.15	0.11
t0746	0.02	0.18	0.12	0.11
t0747	0	0.11	0.16	0.09
t0749	0.1	0.09	0.19	0.13
t0752	0.13	0.17	0.26	0.19
t0753	0.42	0.23	0.2	0.28
t0754	0.04	0	0.08	0.04
t0755	0.05	0.05	0	0.03
t0756	0.02	0.03	0.1	0.05
t0757	0.02	0.14	0.05	0.07
t0758	0.05	0.05	0.1	0.07
t0759	0	0.09	0.1	0.06
t0760	0	0.02	0.07	0.03
t0761	0	0.03	0.04	0.02
t0762	0	0.04	0.16	0.07
t0764	0	0	0.06	0.02
t0766	0.02	0.04	0.02	0.03
t0769	0.02	0.06	0.14	0.07
t0770	0.15	0.24	0.37	0.25
t0771	0.01	0.04	0.16	0.07
t0772	0	0.06	0.05	0.04
t0773	0.02	0.06	0.09	0.06
t0779	0.29	1.54	0.62	0.82
t0782	0.51	1.67	1.42	1.2
t0785	0.06	1.1	0.26	0.47
t0786	0.17	1.89	0.22	0.76
t0787	0.15	0.88	0.21	0.41
t0788	0.21	1.57	0.06	0.61
t0792	14.84	50.84	14.39	26.69
t0804	0.09	0.15	0.86	0.37
t0805	0.1	0.1	0.23	0.14
t0806	0.04	0.31	0.16	0.17
t0809	13.57	9.02	53.08	25.22
t0810	7.82	3.64	25.53	12.33
t0811	3.75	2.76	7.92	4.81
t0813	0.77	0.75	0.74	0.75
t0814	0.17	0.33	0.11	0.2
t0815	0.44	1.83	0.9	1.06
t0816	0.6	0.29	1.02	0.64

t0817	0.02	0.04	0.14	0.07
t0818	0	0.05	0.13	0.06
t0819	0.07	0	0	0.02
t0820	0	0	0.12	0.04
t0821	0	0.04	0.09	0.04
t0821	0.05	0.02	0.05	0.04
t0822	0.1	0.04	0.17	0.1
t0823	0	0.09	0.18	0.09
t0824	0.02	0.07	0.03	0.04
t0825	0	0.09	0	0.03
t0825	0	0.09	0	0.03
t0826	0.05	0	0.13	0.06
t0827	0	0.08	0	0.03
t0828	0.17	0.1	0	0.09
t0829	0	0.09	0.11	0.07
t0835	0	0.03	0.09	0.04
t0836	0	0	0	0
t0849	0	0	0.04	0.01
t0852	0.3	0	0.11	0.14
t0853	0.11	0.1	0	0.07
t0854	0.03	0.09	0.12	0.08
t0855	0.07	0.05	0.16	0.09
t0859	0.44	0.15	0.29	0.29
t0860	2.31	0.78	0.01	1.03
t0862	0.07	0.06	0.12	0.08
t0864	0	1.08	0	0.36
t0865	0.49	0.41	0.16	0.35
t0866	0.28	0.8	0.59	0.56
t0867	1	1.81	1.33	1.38
t0874	0	0	0	0
t0875	0	0.24	0.33	0.19
t0877	1.05	0.7	0.87	0.87
t0879	0.27	0.3	0.13	0.23
t0884	0.29	0.08	0.1	0.16
t0885	0.14	0.1	0.28	0.17
t0888	0.1	0.1	0.2	0.13
t0889	0.1	0.05	0.1	0.08
t0890	0	0.1	0.12	0.07
t0891	0.05	0.03	0.16	0.08
t0892	0.17	0.09	0.04	0.1
t0893	0	0.26	0.17	0.14
t0910	5.91	6.25	21.53	11.23
t0911	0.92	1.26	1.55	1.24
t0912	0.11	0.14	0.19	0.15
t0913	0	0	0.08	0.03
t0923	0.08	0.17	0.29	0.18
t0924	0.17	0.23	0.44	0.28
t0925	0.19	0.22	0.31	0.24
t0927	1.79	1.62	1.57	1.66
t0928	3.21	4.43	1.99	3.21
t0935	1.05	0.86	2.11	1.34
t0936	0	0.44	0.56	0.33
t0937	0.07	0.25	0.32	0.21

t0938	0.17	0.13	0.16	0.15
t0939	0.55	0.21	0.26	0.34
t0940	0.04	0.12	0.5	0.22
t0942	46.24	2.12	4.23	17.53
t0944	0.72	0.95	1.08	0.92
t0946	0.04	0.1	0.16	0.1
t0950	0.12	0.12	0.9	0.38
t0951	0	0.81	1.7	0.84
t0966	0.02	0.1	0.16	0.09
t0969	0	0.13	0.05	0.06
t0970	0.19	0.17	0.12	0.16
t0971	0.18	0.26	0.36	0.27
t0972	0.16	0.35	0.34	0.28
t0973	0.2	0.17	1.05	0.47
t0974	0.09	0.11	0.12	0.11
t0975	0.04	0.17	0.28	0.16
t0978	0.49	0.58	0.72	0.6
t0980	0.14	0.47	0.48	0.36
t0981	0	0.07	0.09	0.05
t0987	0.51	0.53	0.21	0.42
t0989	7.93	3.38	17.1	9.47
t0990	0.56	0.3	0.42	0.43
t0991	13.64	14.2	25.09	17.64
t0993	0.21	0.31	0.3	0.27
t0995	0.3	0.38	0.31	0.33
t0996	0.07	0.14	0.11	0.11
t0997	0.43	0.23	0.45	0.37
t1000	0.04	0.28	0.09	0.14
t1002	0.47	0.35	1.15	0.66
t1003	0.21	0.43	0.52	0.39
t1004	0.39	0.38	0.23	0.33
t1005	24.54	9.49	317.28	117.1
t1007	0.18	0.07	0.17	0.14
t1007	0.18	0.07	0.17	0.14
t1008	0	0	0	0
t1009	0	0	0	0
t1010	0.19	0.31	0.02	0.17
t1011	0.01	0.08	0.3	0.13
t1012	0.04	0.11	0.33	0.16
t1013	0	0.06	0	0.02
t1014	0.08	0.22	0.25	0.18
t1015	0	0.3	0.94	0.41
t1016	0	0	0.1	0.03
t1018	0.14	0	0.74	0.29
t1019	0.18	0.09	0.25	0.17
t1020	0.98	4.66	1.19	2.28
t1021	1.06	0.53	1.52	1.04
t1022	0	0.29	0.29	0.19
t1023	0.15	0.76	0.22	0.38
t1024	0	0	0.33	0.11
t1026	0.34	0.47	0	0.27
t1027	0	0.18	0	0.06
t1028	0.02	0.03	0.06	0.04

t1029	0.06	0.08	0.25	0.13
t1030	0.19	0.06	0.26	0.17
t1031	0.33	0.21	0.35	0.3
t1035	0.18	0.08	0.18	0.15
t1035	0.18	0.08	0.18	0.15
t1037	0.8	0.1	0.2	0.37
t1038	1.26	0.91	1.73	1.3
t1039	3.1	2.43	3.52	3.02
t1040	5.86	23.91	2.65	10.81
t1044	0	0.16	0.1	0.09
t1045	0.1	0.29	0.07	0.15
t1049	0.2	0.24	0.14	0.19
t1050	0.06	0.06	0.17	0.1
t1052	0.16	0.14	0.16	0.15
t1054	0.85	0.71	1.02	0.86
t1055	1.68	1.11	1.68	1.49
t1056	0.06	0.12	0.12	0.1
t1057	0.2	0.14	0.11	0.15
t1058	0.04	0.04	0.22	0.1
t1064	0.61	0.95	0.63	0.73
t1065	0.11	0.21	0.19	0.17
t1066	0.26	0.63	1.26	0.72
t1067	0.61	0.96	1.67	1.08
t1068	2.9	0.56	1.99	1.82
t1069	1.52	0.35	2.42	1.43
t1073	0.2	0.07	0.24	0.17
t1076	0.31	0.15	0.41	0.29
t1077	0.08	0.05	0.27	0.13
t1079	0.21	0.31	0.34	0.29
t1080	0	0.09	0	0.03
t1083	1.25	0.36	0.72	0.78
t1083	0.14	0.1	0.11	0.12
t1085	0.03	0.03	0.04	0.03
t1086	0	0.06	0.07	0.04
t1087	0	0.04	0.05	0.03
t1088	0.24	0.18	0.32	0.25
t1088	0.03	0	0.08	0.04
t1091	0.11	0.29	0.07	0.16
t1092	0.24	0.82	0.32	0.46
t1094	0.21	0.77	1.2	0.73
t1095	0.56	0.22	0.83	0.54
t1102	0.06	0.73	0.25	0.35
t1103	0.03	0.85	0.41	0.43
t1106	0.04	0.72	0.15	0.3
t1107	0	0.22	0.35	0.19
t1108	0	0.05	0.18	0.08
t1109	0.09	0.18	0.11	0.13
t1110	0.03	0.15	0.02	0.07
t1111	0.11	0.03	0.16	0.1
t1112	0	0.12	0	0.04
t1113	0.65	0.91	1.49	1.02
t1114	0.09	0.5	0.06	0.22
t1115	0	0	0.31	0.1

t1116	0	0.11	0	0.04
t1117	0	0.23	0.18	0.14
t1118	0	0.08	0	0.03
t1120	0	0.14	0	0.05
t1122	0.52	0.28	2.26	1.02
t1123	0.11	0.7	0.86	0.56
t1124	4.66	13.6	11.03	9.76
t1125	0.71	1.43	3.03	1.72
t1126	0	0	0	0
t1127	0.21	0.39	0	0.2
t1128	0.15	0.25	1.15	0.52
t1129	0	0.12	0.64	0.25
t1130	0.12	0.09	0.39	0.2
t1131	3.01	2.43	4.82	3.42
t1132	0.19	6.78	0.2	2.39
t1133	0.08	0.14	0.08	0.1
t1134	0.11	0.11	0.04	0.09
t1135	0.17	0.01	0.06	0.08
t1136	0.43	0.09	0.4	0.31
t1137	0.09	0.15	0.29	0.18
t1138	0.61	0.46	0.66	0.58
t1139	0	0.15	0.09	0.08
t1141	0.04	0.34	0.24	0.21
t1143	0	0	0	0
t1144	0.06	0.18	0.59	0.28
t1145	0	0.17	0	0.06
t1146	0	0.15	0.19	0.11
t1147	0.04	0.12	0.33	0.16
t1148	1.15	0.95	1.24	1.11
t1149	0.07	0.27	0.03	0.12
t1150	0	0.13	0.1	0.08
t1151	0	0	0.09	0.03
t1152	0.35	0.35	0	0.23
t1153	0	0	0	0
t1155	0.65	1	1.07	0.91
t1156	0.26	0.39	0.84	0.5
t1157	4.2	0.45	1.72	2.12
t1157	4.2	0.45	1.72	2.12
t1158	0.06	0.08	0.36	0.17
t1159	0.41	0.25	0.3	0.32
t1160	2.3	1.14	1.88	1.77
t1161	0.69	0.43	0.88	0.67
t1162	0.16	0.25	0.1	0.17
t1162	0.16	0.25	0.1	0.17
t1163	0.04	0.24	0.61	0.3
t1164	0.02	0.08	0.13	0.08
t1165	1.2	2.9	4.95	3.02
t1167	0.19	0.23	0.2	0.21
t1168	0.55	0.07	0.23	0.28
t1168	0.55	0.07	0.23	0.28
t1169	90.95	164.05	211.64	155.55
t1170	0.76	4.34	3.28	2.79
t1171	1.05	2.43	1.8	1.76

t1175	0.13	0.34	0.47	0.31
t1179	2.64	3.27	10.13	5.35
t1180	6.82	2.47	9.14	6.14
t1187	0.82	2.02	1.13	1.32
t1188	0.08	0.23	0.25	0.19
t1194	0.08	0	0.53	0.2
t1196	0.09	0.37	0.41	0.29
t1200	0.12	0.15	0.09	0.12
t1201	0.65	0.33	0.32	0.43
t1202	0.16	0.27	0.33	0.25
t1203	6.47	6.25	26.81	13.18
t1204	0.56	0.74	1.81	1.04
t1205	0.08	0.12	0.21	0.14
t1206	9.83	2.42	7.57	6.61
t1207	0.54	0.33	0.59	0.49
t1208	0.19	1.49	0.23	0.64
t1209	3.34	3.44	1.07	2.62
t1210	0.03	0.21	0.11	0.12
t1211	0	0.15	0.19	0.11
t1222	0.13	0.11	0.12	0.12
t1224	0.19	0.29	0.19	0.22
t1225	0.03	0.07	0.12	0.07
t1226	0.13	0.11	0.29	0.18
t1227	3.86	1.15	4.86	3.29
t1229	1.03	0.79	1.09	0.97
t1232	0.71	0.61	1.57	0.96
t1233	0.12	0.22	0.24	0.19
t1234	0.94	0.48	2.01	1.14
t1235	0.3	0.5	0.58	0.46
t1236	0.02	0.27	0.31	0.2
t1237	0	0.07	0.31	0.13
t1238	0.02	0.17	0.12	0.1
t1239	0.09	0.13	0.15	0.12
t1240	0.12	0.15	0.26	0.18
t1241	0.02	0.02	0.1	0.05
t1242	0.06	0.22	0.62	0.3
t1243	0.14	0.02	0.32	0.16
t1246	6.32	7.06	7.27	6.88
t1247	1.21	0.79	1.64	1.21
t1248	0.19	0	0.17	0.12
t1248	0.19	0	0.17	0.12
t1254	0.28	0.12	0.98	0.46
t1255	0	0.28	0.31	0.2
t1256	0.05	0.32	0.47	0.28
t1257	1.2	0.47	1.05	0.91
t1258	0.02	0.07	0.13	0.07
t1259	0	0.61	0.05	0.22
t1260	0.02	0.32	0.1	0.15
t1261	0.06	0	0	0.02
t1262	0.04	0.02	0.1	0.05
t1263	0.04	0.05	0.16	0.08
t1264	0.1	0.28	0.05	0.14
t1265	0	0.29	0	0.1

t1266	0.13	0.19	0.17	0.16
t1267	0.07	0.05	0.28	0.13
t1268	0.05	0.18	0.41	0.21
t1269	0.15	0.45	0.85	0.48
t1270	0.2	1.8	0.28	0.76
t1271	0.31	0.94	0.21	0.49
t1272	0.11	0.08	0.04	0.08
t1273	0.07	0.03	0.21	0.1
t1274	0	0.11	0	0.04
t1275	0	0.11	0.09	0.07
t1276	0	0	0	0
t1277	0.12	0.13	0.13	0.13
t1278	0	0.08	0.12	0.07
t1279	0	0.29	0.36	0.22
t1280	0	0.13	0.44	0.19
t1281	0	0	0.08	0.03
t1282	0.01	0.04	0.21	0.09
t1283	0.09	0.2	0.31	0.2
t1284	0.13	0.13	0.17	0.14
t1285	0.23	0.13	0.26	0.21
t1286	0.22	0.06	0.31	0.2
t1287	0.04	0.21	0.09	0.11
t1288	0	0	0.11	0.04
t1289	0	0.08	0.08	0.05
t1290	0.02	0.11	0.14	0.09
t1293	0.46	0.17	0.46	0.36
t1296	0.08	0.04	0.19	0.1
t1297	0.03	0.15	0.16	0.11
t1300	1.94	6.7	0.88	3.17
t1301	1.36	2.75	0.63	1.58
t1305	0.11	0.35	0.34	0.27
t1306	0.1	0	0	0.03
t1307	0.08	0.4	0.21	0.23
t1309	0.22	0.15	0.25	0.21
t1310	0.22	0.53	0.6	0.45
t1311	1.46	0.93	2.09	1.49
t1314	0.02	0.08	0.31	0.14
t1315	0.17	0.63	0.24	0.35
t1320	2.9	2.15	4.01	3.02
t1322	0.06	0.18	0.19	0.14
t1323	0.04	0.35	0.03	0.14
t1324	0.19	0.17	0.19	0.18
t1325	0.09	0.26	0.13	0.16
t1326	0	0.01	0.05	0.02
t1327	0.04	0.11	0	0.05
t1328	0.22	0.4	0.1	0.24
t1329	0.25	6.4	1.04	2.56
t1330	1.04	1.36	4.21	2.2
t1332	0.4	0	0	0.13
t1332	0.4	0	0	0.13
t1334	0.37	0.95	0.43	0.58
t1336	86.08	37.73	127.57	83.79
t1337	22.95	13.68	58.9	31.84

t1340	0.01	0.11	0.06	0.06
t1342	0.23	0.53	0.25	0.34
t1343	0.29	0.41	0.17	0.29
t1344	0.14	0.69	0.48	0.44
t1345	0.21	0.03	0.32	0.19
t1349	0.58	3.74	0.88	1.73
t1352	0	0.16	0.03	0.06
t1352	0	0.16	0.03	0.06
t1353	0.02	0	0.14	0.05
t1353	0.02	0	0.14	0.05
t1354	0	0.07	0.09	0.05
t1354	0	0.07	0.09	0.05
t1355	0	0.05	0.06	0.04
t1355	0	0.05	0.06	0.04
t1356	0	0.04	0.08	0.04
t1356	0	0.04	0.08	0.04
t1357	0	0.11	0.14	0.08
t1357	0	0.11	0.14	0.08
t1358	0.11	0.07	0.04	0.07
t1358	0.11	0.07	0.04	0.07
t1359	0.02	0.04	0.04	0.03
t1359	0.02	0.04	0.04	0.03
t1360	0	0.07	0.29	0.12
t1360	0	0.07	0.29	0.12
t1361	0	0.09	0.22	0.1
t1361	0	0.09	0.22	0.1
t1364	0	0	0.26	0.09
t1364	0	0	0.26	0.09
t1365	0	0	0	0
t1365	0	0	0	0
t1366	0	0	0.07	0.02
t1366	0	0	0.07	0.02
t1367	0	0.07	0.09	0.05
t1367	0	0.07	0.09	0.05
t1368	0	0	0.03	0.01
t1368	0	0	0.03	0.01
t1369	0.02	0.02	0.08	0.04
t1369	0.02	0.02	0.08	0.04
t1370	0.05	0	0.21	0.09
t1370	0.05	0	0.21	0.09
t1371	0.06	0.22	0.04	0.11
t1371	0.06	0.22	0.04	0.11
t1372	0.02	0.03	0.06	0.04
t1372	0.02	0.03	0.06	0.04
t1373	0.07	0.08	0.1	0.08
t1373	0.07	0.08	0.1	0.08
t1374	0.04	0	0.26	0.1
t1374	0.04	0	0.26	0.1
t1375	0	0.08	0.06	0.05
t1375	0	0.08	0.06	0.05
t1376	0.26	0.03	0	0.1
t1376	0.26	0.03	0	0.1
t1377	0	0.16	0.09	0.08

t1377	0	0.16	0.09	0.08
t1378	0	0	0.22	0.07
t1378	0	0	0.22	0.07
t1379	0	0.07	0.12	0.06
t1379	0	0.07	0.12	0.06
t1380	0	0	0.09	0.03
t1380	0	0	0.09	0.03
t1381	0	0.05	0	0.02
t1381	0	0.05	0	0.02
t1382	0	0	0.14	0.05
t1383	0.15	0.15	0	0.1
t1384	0.04	0.04	0.05	0.04
t1385	0.01	0.05	0.25	0.1
t1386	0	0	0	0
t1388	0	0.12	0.15	0.09
t1389	0	0.04	0	0.01
t1390	0	0.03	0.1	0.04
t1391	0	0.06	0.16	0.07
t1392	0.11	0.22	0.29	0.21
t1393	0.04	0.16	0.19	0.13
t1394	0	0	0.7	0.23
t1395	0.39	0.11	0.71	0.4
t1396	0	0	0.07	0.02
t1397	0.45	0.16	0.2	0.27
t1398	0.2	0.94	0.69	0.61
t1401	0.21	0.21	0.4	0.27
t1402	0.07	0	0.19	0.09
t1403	0.52	0.26	1.84	0.87
t1404	0.47	0.12	0.81	0.47
t1405	0.32	0.4	0.77	0.5
t1407	0.13	0.14	0.31	0.19
t1408	0.03	0	0.1	0.04
t1409	0	0.25	0.24	0.16
t1410	0.12	0.09	0.48	0.23
t1411	0.41	0.25	0.12	0.26
t1412	0.08	0.16	0.37	0.2
t1413	0.24	0.14	0.46	0.28
t1414	0.1	0.05	0.25	0.13
t1415	0.07	0.02	0.08	0.06
t1416	0.71	0.5	0.1	0.44
t1417	0.03	0.05	0.43	0.17
t1418	0	0	0	0
t1419	0.1	0.06	0.13	0.1
t1420	0.18	0.22	0.31	0.24
t1421	0.57	0.41	1.93	0.97
t1421	0.57	0.41	1.93	0.97
t1422	6.86	1.56	1.13	3.18
t1424	0.61	1.56	1.59	1.25
t1425	0.07	0	0	0.02
t1428	0.08	0.09	0.47	0.21
t1430	0	0	0.15	0.05
t1431	0.05	0.39	0.42	0.29
t1432	0.51	0.47	0.19	0.39

t1434	0	0.12	0.62	0.25
t1435	0	0	0	0
t1436	0	0.2	0.08	0.09
t1437	0.53	0.29	0.42	0.41
t1438	0.13	0.11	0.21	0.15
t1442	0.2	0.29	0.09	0.19
t1443	0.47	0.34	0.58	0.46
t1444	0.04	0.08	0.31	0.14
t1445	0.06	0.1	0.06	0.07
t1447	0.3	0.12	0.26	0.23
t1448	0.34	0.21	0.93	0.49
t1449	0.04	0.49	0.21	0.25
t1450	0.79	1.07	0.28	0.71
t1451	4.27	3.19	0.55	2.67
t1452	2.78	5.01	2.24	3.34
t1453	1.48	5.75	2.02	3.08
t1454	2.44	2.6	1.64	2.23
t1455	1.21	1.14	0.83	1.06
t1456	0.65	0.81	0.44	0.63
t1458	13.29	14.65	0.73	9.56
t1459	0.64	1.86	0.51	1
t1460	0.24	0.43	0.6	0.42
t1461	0.75	0.61	1.36	0.91
t1463	0.07	0.29	0.15	0.17
t1464	0.3	0.2	0.29	0.26
t1465	0.12	0.19	0.15	0.15
t1465	0.12	0.19	0.15	0.15
t1466	0.33	0.39	0.27	0.33
t1467	0.04	0.13	0.12	0.1
t1468	0.03	0.14	0.39	0.19
t1470	0	0.04	0.37	0.14
t1471	0.13	0.15	0.23	0.17
t1472	0.11	0.1	0.13	0.11
t1473	0.08	0.06	0.11	0.08
t1474	0.03	0.06	0.19	0.09
t1475	0.27	1.04	1.17	0.83
t1476	0	0.19	0.12	0.1
t1479	0	0.11	0.53	0.21
t1482	4.26	6.93	1.19	4.13
t1484	1	0.17	0.86	0.68
t1486	0.2	0.14	0.2	0.18
t1488	0.59	0.62	0.47	0.56
t1489	1.09	0.58	0.24	0.64
t1491	0.03	0.21	0.26	0.17
t1493	1.14	2.34	1.41	1.63
t1495	0	0.37	0	0.12
t1496	0.11	0.24	0.3	0.22
t1497	0.02	0.07	0.32	0.14
t1498	0.07	0.17	0.23	0.16
t1499	0.16	0.41	0.5	0.36
t1500	0.23	0.3	0.39	0.31
t1501	0.8	0.28	3.68	1.59
t1502	0.14	0.59	0.47	0.4

t1503	0.28	0.47	0.81	0.52
t1504	0.21	0.41	0.47	0.36
t1505	0.26	0.28	0.32	0.29
t1506	0.15	0.07	0.44	0.22
t1507	0.15	0.1	0.36	0.2
t1509	0.01	0.1	0.13	0.08
t1510	0	0	0.16	0.05
t1511	0	0	0.09	0.03
t1512	0.1	0.29	0.05	0.15
t1513	0.01	0.04	0.09	0.05
t1514	0	0	0.34	0.11
t1515	0.43	0.08	0.44	0.32
t1516	1.34	1.42	1.33	1.36
t1519	0.19	0.39	0.63	0.4
t1521	0.23	0.25	0.22	0.23
t1522	0.4	0.32	0.84	0.52
t1523	0.02	0.09	0.23	0.11
t1524	0.17	0	0.19	0.12
t1525	0.13	0.07	0.1	0.1
t1526	0.04	0.08	0.05	0.06
t1527	0.11	0.12	0.12	0.12
t1529	0.09	0.14	0.24	0.16
t1530	0.11	0	0.17	0.09
t1531	0.17	0.35	0.19	0.24
t1532	0.18	0.04	0.21	0.14
t1533	0	0.04	0.06	0.03
t1533	0	0.04	0.06	0.03
t1535	0.07	0.13	0.49	0.23
t1536	0.03	0.26	0.08	0.12
t1537	0	0	0.05	0.02
t1539	0.07	0.11	0.31	0.16
t1540	0.09	0.23	0.15	0.16
t1541	0	0.25	0.17	0.14
t1542	0.28	0.42	0.28	0.33
t1542	1.33	2.67	5.14	3.05
t1543	0.21	0.76	0.81	0.59
t1546	0.11	0.26	0.42	0.26
t1547	0.12	0.15	0.54	0.27
t1548	0.13	0.58	0.77	0.49
t1550	6.06	4.67	6.51	5.75
t1552	0.52	0.3	0	0.27
t1553	0.06	0.13	0.14	0.11
t1555	2.29	5.34	3.05	3.56
t1556	5.01	4.3	18.77	9.36
t1557	0.06	0.11	0.12	0.1
t1558	0.14	0.42	0.08	0.21
t1560	0.53	0.24	0.87	0.55
t1561	0.29	0.33	0.51	0.38
t1562	0.16	0.05	0.16	0.12
t1565	5.26	3.6	3.01	3.96
t1566	3.35	8.04	13.78	8.39
t1567	0.12	0.33	1	0.48
t1568	0	0.15	0.2	0.12

t1569	0.09	0.2	0.09	0.13
t1570	0.19	0.34	0.37	0.3
t1571	0.22	0.29	0.27	0.26
t1572	0.03	0.11	0.04	0.06
t1574	0	0.05	0	0.02
t1575	0	0.06	0.11	0.06
t1576	0.85	1.91	1.35	1.37
t1577	0.91	0.62	3.07	1.53
t1578	0.12	0.16	0.4	0.23
t1579	0.26	0.54	0.45	0.42
t1580	0.85	0.6	1.92	1.12
t1581	0.13	0.11	0.22	0.15
t1582	0.9	0.38	1.03	0.77
t1584	3.34	1.51	2.1	2.32
t1585	0.24	0.35	0.43	0.34
t1589	0.09	0.09	0.25	0.14
t1590	0.03	0.1	0.08	0.07
t1599	0	0.41	0.78	0.4
t1601	0.14	0.18	0.64	0.32
t1601	0.14	0.18	0.64	0.32
t1602	0.06	0.1	0.23	0.13
t1604	0	0	0	0
t1604	0	0	0	0
t1605	0.05	0.05	0	0.03
t1606	0.47	0.24	0.37	0.36
t1611	0.52	0.53	0.59	0.55
t1612	0	0.13	0.07	0.07
t1614	0	0.03	0.1	0.04
t1616	0.07	0.01	0.19	0.09
t1617	0.32	0.71	0.57	0.53
t1619	0.15	0.47	0.2	0.27
t1621	0.18	0.11	0.22	0.17
t1622	0.08	0.49	0	0.19
t1625	10.47	5.59	22.56	12.87
t1628	0.89	0.24	1.12	0.75
t1629	0.28	0.68	0.65	0.54
t1630	0.67	0.89	0.24	0.6
t1632	0.13	0.2	0.11	0.15
t1633	0.1	0.49	0.43	0.34
t1634	0.14	0.17	0.22	0.18
t1640	0.13	0	0	0.04
t1641	0.14	0.19	0.06	0.13
t1642	0	0.62	0	0.21
t1643	0.26	0.23	0.45	0.31
t1644	0.56	0.65	2.88	1.36
t1645	0.06	0.22	0.83	0.37
t1646	0.08	0.2	0.34	0.21
t1647	0.33	0.17	0.52	0.34
t1648	0.33	0.49	0.34	0.39
t1650	0.72	1.35	3.83	1.97
t1652	0.97	0.08	0.49	0.51
t1653	1.29	0.76	1.24	1.1
t1659	0.33	0.1	0.57	0.33

t1664	0.2	0.36	0.23	0.26
t1665	0.52	0.32	0.48	0.44
t1666	3.64	2.27	3.27	3.06
t1668	10.92	6.4	3.27	6.86
t1669	0.02	0.16	0.39	0.19
t1670	0.24	0.13	0.4	0.26
t1671	0.2	0.53	0.44	0.39
t1672	0.4	0.4	0.28	0.36
t1673	0.31	0.51	0.58	0.47
t1675	5.97	5.21	8.45	6.54
t1676	2.92	2.4	1.84	2.39
t1677	0.98	0.43	1.34	0.92
t1678	0.25	0.39	0.23	0.29
t1680	0.11	0.04	0.23	0.13
t1682	105.76	141.03	616.59	287.79
t1683	0.05	0.04	0.46	0.18
t1684	0	0.21	0.09	0.1
t1685	0.49	0.28	0.11	0.29
t1687	0.11	0.25	0.09	0.15
t1691	0.14	0.12	0.31	0.19
t1692	0.34	0.3	0.62	0.42
t1696	0.02	0.07	0.15	0.08
t1699	0.44	0.23	0.31	0.33
t1700	0.04	0.09	0.17	0.1
t1705	0.11	0.18	0.11	0.13
t1706	0.09	0	0	0.03
t1707	0.35	0.54	0.93	0.61
t1708	0.76	0.95	1.13	0.95
t1709	0.88	0.61	1.25	0.91
t1710	0.18	0.69	0.38	0.42
t1711	0.16	0.16	0.55	0.29
t1712	0.2	0.2	0.15	0.18
t1713	0.53	0.41	0.3	0.41
t1714	0.07	0.29	0.07	0.14
t1715	0.2	0.51	0.78	0.5
t1718	0.39	0.08	0.23	0.23
t1721	0.17	0.19	0.42	0.26
t1730	1.76	4.31	0.46	2.18
t1731	0.31	0.34	0.48	0.38
t1733	2.61	4.03	0.97	2.54
t1742	1.36	2.54	4.06	2.65
t1745	1.37	2.53	2.03	1.98
t1746	1.61	3.38	2.9	2.63
t1751	0.03	0	0.24	0.09
t1752	0.16	0.14	1.22	0.51
t1754	0.15	0.14	0.38	0.22
t1756	0.14	0.22	0.14	0.17
t1759	0.16	0.15	4.21	1.51
t1760	0.2	0.13	0.19	0.17
t1761	0.21	1.14	0.75	0.7
t1763	0.08	0.18	0.41	0.22
t1764	0.02	0.22	0.09	0.11
t1766	0.39	0.22	0.45	0.35

t1768	0.05	0.19	0.34	0.19
t1772	0.21	0.19	0.34	0.25
t1773	0.76	0.63	2.1	1.16
t1774	0.41	0.65	3.7	1.59
t1775	0	0.3	0.46	0.25
t1778	0.04	0.07	0.02	0.04
t1782	0.04	0.12	0.06	0.07
t1783	0.16	0.2	0.41	0.26
t1784	0.25	0.21	0.41	0.29
t1785	0.29	0.58	0.32	0.4
t1787	3.14	0.53	60.99	21.55
t1788	0.7	0.17	41.41	14.09
t1789	1.24	0.3	11.41	4.32
t1790	3.34	0.54	43.7	15.86
t1791	0.33	0.18	7.73	2.75
t1792	0.74	0.21	1.9	0.95
t1793	0.33	0.25	0.68	0.42
t1794	0.54	0.45	1.04	0.68
t1798	0.84	0.76	0.17	0.59
t1799	3.88	0.86	1.35	2.03
t1800	0.53	0.64	0.07	0.41
t1802	0.4	0.1	0.42	0.31
t1809	0.03	0.17	1.33	0.51
t1810	0.06	0.03	0.28	0.12
t1812	0.19	0.08	0.15	0.14
t1822	0.43	0.43	1.7	0.85
t1825	0.43	0.63	1.6	0.89
t1826	0.21	7.88	1.42	3.17
t1827	5.01	1.1	8.38	4.83
t1830	0	0.32	0.18	0.17
t1831	0.11	0.36	0.3	0.26
t1834	1.28	4.49	1.54	2.44
t1835	0.26	0.29	0.09	0.21
t1836	0.11	0.05	0.83	0.33
t1839	0.04	0.09	0.13	0.09
t1839	0.04	0.09	0.13	0.09
t1840	0.31	0.39	0.28	0.33
t1841	0.08	0.15	0.39	0.21
t1842	1.36	1.07	3.5	1.98
t1843	0.08	0.07	0.14	0.1
t1846	0.2	0.69	0.35	0.41
t1847	0.25	0.22	0.82	0.43
t1848	0.18	0.15	0.2	0.18
t1851	0.76	0.62	0.94	0.77
t1852	0.15	0.41	0.13	0.23
t1855	0.09	0.27	0.14	0.17
t1856	0.06	0.25	0.15	0.15
t1857	0.1	0.23	0.35	0.23
t1859	0.18	0.53	0.32	0.34
t1860	0.82	0.28	3.24	1.45
t1861	0.19	0.15	0.81	0.38
t1864	0.49	0.45	0.45	0.46
t1865	0.55	7.03	0.89	2.82

t1867	0	0.02	0.12	0.05
t1867	0	0.02	0.12	0.05
t1868	0.12	0.06	0.14	0.11
t1868	0.12	0.06	0.14	0.11
t1869	0	0	0.12	0.04
t1869	0	0	0.12	0.04
t1870	0.04	0.12	0.33	0.16
t1870	0.04	0.12	0.33	0.16
t1871	0	0.07	0.48	0.18
t1871	0	0.07	0.48	0.18
t1872	0	0.16	0.59	0.25
t1872	0	0.16	0.59	0.25
t1873	0.06	0.09	0.04	0.06
t1873	0.06	0.09	0.04	0.06
t1874	0.06	1.14	0.21	0.47
t1874	0.06	1.14	0.21	0.47
t1875	0.12	1.95	0.53	0.87
t1875	0.12	1.95	0.53	0.87
t1876	0.36	1.09	0.43	0.63
t1876	0.36	1.09	0.43	0.63
t1877	0.31	0.17	0.12	0.2
t1877	0.31	0.17	0.12	0.2
t1878	0.22	0.24	0.21	0.22
t1878	0.22	0.24	0.21	0.22
t1879	0.04	0.09	0.09	0.07
t1879	0.04	0.09	0.09	0.07
t1880	0.05	0.11	0.16	0.11
t1880	0.05	0.11	0.16	0.11
t1881	0	0.05	0.13	0.06
t1881	0	0.05	0.13	0.06
t1882	0	0.05	0.22	0.09
t1882	0	0.05	0.22	0.09
t1883	0.02	0.04	0.03	0.03
t1883	0.02	0.04	0.03	0.03
t1884	0.21	0.14	0.12	0.16
t1884	0.21	0.14	0.12	0.16
t1885	0	0.05	0	0.02
t1885	0	0.05	0	0.02
t1886	0.04	0.04	0.11	0.06
t1886	0.04	0.04	0.11	0.06
t1887	0	0.16	0.3	0.15
t1887	0	0.16	0.3	0.15
t1888	0	0	0.08	0.03
t1888	0	0	0.08	0.03
t1889	0.07	0.14	0.28	0.16
t1889	0.07	0.14	0.28	0.16
t1890	0	0.05	0.15	0.07
t1890	0	0.05	0.15	0.07
t1891	0	0.08	0.17	0.08
t1891	0	0.08	0.17	0.08
t1892	0.05	0.12	0.32	0.16
t1892	0.05	0.12	0.32	0.16
t1893	0.14	0.04	0.1	0.09

t1893	0.14	0.04	0.1	0.09
t1894	0	0.08	0.03	0.04
t1894	0	0.08	0.03	0.04
t1895	0.06	0.13	0.12	0.1
t1895	0.06	0.13	0.12	0.1
t1896	1.37	0.58	0.11	0.69
t1896	1.37	0.58	0.11	0.69
t1897	0.06	0.25	0.16	0.16
t1897	0.06	0.25	0.16	0.16
t1898	0.09	0.13	0.12	0.11
t1898	0.09	0.13	0.12	0.11
t1899	0.04	0	0.05	0.03
t1899	0.04	0	0.05	0.03
t1900	0.21	0.09	0	0.1
t1900	0.21	0.09	0	0.1
t1901	0.02	0.34	0.15	0.17
t1901	0.02	0.34	0.15	0.17
t1902	0.05	0.4	1.11	0.52
t1903	1.82	1.42	0.75	1.33
t1903	1.82	1.42	0.75	1.33
t1904	0.03	0.02	0.13	0.06
t1904	0.03	0.02	0.13	0.06
t1905	0.04	0.04	0.11	0.06
t1905	0.04	0.04	0.11	0.06
t1906	0	0	0.05	0.02
t1906	0	0	0.05	0.02
t1907	0	0.08	0.47	0.18
t1907	0	0.08	0.47	0.18
t1908	0.06	0.1	0.26	0.14
t1908	0.06	0.1	0.26	0.14
t1909	0.15	0.73	0.17	0.35
t1909	0.15	0.73	0.17	0.35
t1910	0.53	0.76	0.25	0.51
t1910	0.53	0.76	0.25	0.51
t1911	0.39	0.2	0.65	0.41
t1911	0.39	0.2	0.65	0.41
t1912	0	0.09	0.24	0.11
t1912	0	0.09	0.24	0.11
t1914	0.05	0.14	0.21	0.13
t1914	0.05	0.14	0.21	0.13
t1915	0.05	0.1	0.21	0.12
t1915	0.05	0.1	0.21	0.12
t1916	0	0.19	0.31	0.17
t1916	0	0.19	0.31	0.17
t1917	0.03	0.12	0.16	0.1
t1917	0.03	0.12	0.16	0.1
t1918	0.22	0.23	0.72	0.39
t1918	0.22	0.23	0.72	0.39
t1919	0.07	0	0.08	0.05
t1919	0.07	0	0.08	0.05
t1920	0.21	0.51	0.95	0.56
t1925	0	0.1	0.28	0.13
t1926	0.05	0.23	0.16	0.15

t1927	0.1	0.17	0.25	0.17
t1931	0.03	0.11	0.08	0.07
t1932	0	0.01	0	0
t1932	0	0.01	0	0
t1933	0.29	0.05	0.63	0.32
t1937	0.35	0.49	0.68	0.51
t1938	1.16	2.6	0.83	1.53
t1939	0.16	0.06	0.15	0.12
t1944	0.32	0.16	0.15	0.21
t1945	0.1	0.15	0.03	0.09
t1947	1.56	0.92	2.5	1.66
t1948	0.06	0.02	0.22	0.1
t1948	0.06	0.02	0.22	0.1
t1950	0.08	0.29	0.16	0.18
t1951	0.09	0.07	0.21	0.12
t1955	0.08	0.18	0.16	0.14
t1958	0	0.03	0	0.01
t1959	0.05	0.04	0.08	0.06
t1960	0.25	0.93	0.83	0.67
t1961	20.15	17.62	37.8	25.19
t1962	0.03	0.19	0.17	0.13
t1962	0.03	0.19	0.17	0.13
t1963	0.7	0.18	0.15	0.34
t1964	5.89	6.85	7.72	6.82
t1965	0.09	0.17	0.2	0.15
t1966	0.13	0.28	0.68	0.36
t1967	0	0.22	0	0.07
t1968	0.03	0.12	0.04	0.06
t1969	0.13	0.03	0.96	0.37
t1970	0.15	0.27	0.46	0.29
t1972	0.14	0.2	0.16	0.17
t1981	0.36	0.25	0.43	0.35
t1982	0	0.02	0.04	0.02
t1983	0.04	0	0.15	0.06
t1985	0	0	1.4	0.47
t1986	0.93	1.17	7.04	3.05
t1987	0	0	0.91	0.3
t1989	0.42	1.16	2.22	1.27
t1991	0.36	0.24	0.52	0.37
t1992	0.37	0.47	0.26	0.37
t1993	13.47	13.03	14.91	13.8
t1994	1.28	1.6	1.45	1.44
t1995	0.11	0.12	0.33	0.19
t1997	0.06	0.07	0.1	0.08
t2000	0.11	0.05	0.09	0.08
t2001	1.24	0.55	0.35	0.71
t2002	0.18	0.24	0.19	0.2
t2003	0.17	0.42	0.54	0.38
t2004	1.39	1.48	0.8	1.22
t2010	0.1	0.07	0.14	0.1
t2011	0.21	0	0.21	0.14
t2012	0.04	0.01	0.09	0.05
t2013	0	0.11	0	0.04

t2014	0.3	0.2	0.18	0.23
t2015	0.11	0.19	0.37	0.22
t2020	0	0	0.13	0.04
t2022	1.12	1.76	1.5	1.46
t2023	0.25	0.39	1.16	0.6
t2025	4.81	1.89	3.82	3.51
t2026	0.22	0.18	0.19	0.2
t2027	0.01	0.13	0.11	0.08
t2028	0.03	0.14	0.11	0.09
t2029	0.36	0.1	0.16	0.21
t2031	0.22	0.3	0	0.17
t2035	0.31	0.14	0.38	0.28
t2036	0.22	0.12	0.08	0.14
t2037	0.15	0.34	0.19	0.23
t2038	0.07	0.13	0.32	0.17
t2039	0.05	0	0.2	0.08
t2040	0.17	0.16	0.99	0.44
t2041	0.08	0.1	0.26	0.15
t2042	0.03	0.13	0.16	0.11
t2045	0.03	0.05	0.05	0.04
t2046	0.21	0.07	0.39	0.22
t2047	0.24	0.37	0.27	0.29
t2048	0.09	0.09	0.18	0.12
t2050	0.11	0.65	0.16	0.31
t2051	0.15	0.32	0.54	0.34
t2053	0.18	0.18	0.21	0.19
t2056	0.11	0.05	0.35	0.17
t2061	0.27	0.27	0.39	0.31
t2062	0.15	0.19	0.16	0.17
t2062	0.15	0.19	0.16	0.17
t2063	0.08	0.34	1.28	0.57
t2064	0.05	0.02	0.76	0.28
t2065	0.09	0.09	0.03	0.07
t2066	0.07	0.02	0.16	0.08
t2066	0.07	0.02	0.16	0.08
t2067	0.06	0.03	0.14	0.08
t2067	0.06	0.03	0.14	0.08
t2068	0.02	0.08	0.04	0.05
t2069	0.21	0.18	0.34	0.24
t2071	0.06	0.06	0.17	0.1
t2072	0.12	0.18	0.29	0.2
t2073	0.61	0.23	0.9	0.58
t2074	0.43	0.34	0.56	0.44
t2075	0.03	0	0.04	0.02
t2076	0	0.04	0.23	0.09
t2077	0.05	0.09	0.16	0.1
t2078	0	0.1	0.9	0.33
t2078	0	0.1	0.9	0.33
t2079	0	0.06	0.2	0.09
t2080	0.27	0.38	0.44	0.36
t2080	0.27	0.38	0.44	0.36
t2086	0.14	0.07	0.16	0.12
t2088	0.11	1.02	0.03	0.39

t2095	0.29	0.25	0.44	0.33
t2101	0.29	0.89	0.52	0.57
t2102	0.34	0.45	0.55	0.45
t2103	1.33	0.4	3.05	1.59
t2107	0	0.37	0.2	0.19
t2108	0.14	0.17	0.9	0.4
t2110	0	0.13	0.17	0.1
t2115	50.3	22.28	54.21	42.26
t2119	0.53	0.22	0.08	0.28
t2120	0.46	0.39	1.07	0.64
t2126	0.88	1.69	0.84	1.14
t2132	0.06	0.39	0.05	0.17
t2133	0.09	0.33	0.24	0.22
t2134	0.21	1.11	0	0.44
t2135	10.16	8.9	11.84	10.3
t2136	6.01	14.6	10.69	10.43
t2137	141.41	93.37	166.12	133.63
t2138	110.86	125.18	309.79	181.94
t2140	77.8	111.72	265.46	151.66
t2141	136.54	211.48	480.84	276.29
t2142	71.64	73.42	248.52	131.19
t2143	46.46	455.43	847.97	449.95
t2144	140.48	372.25	804.1	438.94
t2145	187.85	296.55	159.03	214.48
t2146	172.83	228.4	1188.75	529.99
t2147	0.19	0.13	0.25	0.19
t2149	0.43	0	0.12	0.18
t2150	0.02	0.06	0.08	0.05
t2150	0.02	0.06	0.08	0.05
t2151	0	0.2	0.11	0.1
t2152	0.04	0.18	0.19	0.14
t2152	0.04	0.18	0.19	0.14
t2153	0	0.16	0.01	0.06
t2154	0	0.17	0.24	0.14
t2154	0	0.17	0.24	0.14
t2156	0	0.17	0.03	0.07
t2158	0.06	0.15	0.28	0.16
t2159	0	0.14	0.42	0.19
t2160	0.04	0.2	0.27	0.17
t2161	0.4	0.34	0.89	0.54
t2162	0.18	0.03	0.13	0.11
t2163	0.2	0.17	1	0.46
t2164	0.12	0.1	0.76	0.33
t2165	0.38	0.3	2.7	1.13
t2168	0	0.07	0	0.02
t2176	0	0.1	0	0.03
t2179	0.22	0.16	0.18	0.19
t2180	0.81	0.32	0.47	0.53
t2181	25.5	73.88	70.58	56.65
t2184	0.07	0.13	0.25	0.15
t2187	0.41	0.07	0.46	0.31
t2188	0.09	0.03	0.42	0.18
t2202	0.21	0.08	0.45	0.25

t2205	0.05	0.25	0.48	0.26
t2212	0.34	0.36	0.57	0.42
t2213	4.85	1.82	4.63	3.77
t2214	0.68	0.56	1.22	0.82
t2215	0.39	0.43	0.94	0.59
t2216	0.09	0.03	0.24	0.12
t2217	0	0.08	0.17	0.08
t2218	0.09	0	0	0.03
t2222	1.42	0.57	0.9	0.96
t2223	0.27	0.08	0.55	0.3
t2225	0.58	0.4	0.27	0.42
t2226	0	0.31	0.28	0.2
t2231	0.37	1.36	0.68	0.8
t2236	0.11	0.06	0.08	0.08
t2236	0.11	0.06	0.08	0.08
t2237	0.06	0.18	0.16	0.13
t2247	0.06	0.06	0.23	0.12
t2252	0.06	0.06	0.12	0.08
t2253	0.87	2.07	1.17	1.37
t2257	0.1	0.14	0.2	0.15
t2262	0	0.4	0.17	0.19
t2263	0.04	0.15	0.07	0.09
t2264	0.18	0.04	0.42	0.21
t2265	0.06	0.06	0.13	0.08
t2266	0.05	0.14	1.15	0.45
t2267	0	0.4	0.48	0.29
t2269	0	0.06	0	0.02
t2275	0.04	0.04	0.23	0.1
t2281	0	0	0	0
t2285	0.3	0.34	0.51	0.38
t2286	11.38	11.69	19.63	14.23
t2288	0.18	0.4	1.02	0.53
t2289	0.36	0.62	0.76	0.58
t2292	0.15	0.25	0.39	0.26
t2294	0.15	0.17	0.29	0.2
t2295	0.05	0.15	0.21	0.14
t2296	0.3	0.28	0.68	0.42
t2297	0	0.21	0.13	0.11
t2298	0.26	0.13	0.42	0.27
t2299	0.64	0.73	1	0.79
t2300	2.38	1.47	2.65	2.17
t2301	0.17	1.29	3.46	1.64
t2301	0.17	1.29	3.46	1.64
t2302	0	0.19	0.24	0.14
t2304	0.03	1.65	0.23	0.64
t2306	0.04	0.31	0.43	0.26
t2307	0.13	0.06	0	0.06
t2308	0.04	0	1.44	0.49
t2312	0	0.08	0.19	0.09
t2319	0.2	0.12	0.12	0.15
t2319	0.2	0.12	0.12	0.15
t2322	0	0.2	0.28	0.16
t2323	1.58	0.43	0.31	0.77

t2326	0.16	0.52	0.14	0.27
t2330	0.01	0.06	0.12	0.06
t2331	0.04	0.09	0.2	0.11
t2335	0.06	0.07	0.49	0.21
t2337	0.08	0.11	0.19	0.13
t2338	0.05	0.11	0.11	0.09
t2339	0	0.05	0.14	0.06
t2339	0	0.05	0.14	0.06
t2340	0.11	0.02	0.15	0.09
t2345	0.05	0.1	0.3	0.15
t2345	0.05	0.1	0.3	0.15
t2346	0.34	0.24	0.54	0.37
t2347	0.17	0.1	0.36	0.21
t2352	0.06	0.02	0.28	0.12
t2354	0.01	0.31	0.19	0.17
t2355	0.09	0.35	0.43	0.29
t2357	1.08	0.68	1.14	0.97
t2358	0.13	0.18	0.14	0.15
t2359	0.21	0.4	0.79	0.47
t2360	5.89	2.39	4.47	4.25
t2363	0.06	0.06	0.2	0.11
t2364	0.46	0.53	0.29	0.43
t2365	2.51	0.09	0.88	1.16
t2368	0.15	0.07	0.27	0.16
t2375	0.2	0.07	0.34	0.2
t2378	0.24	0.06	0.16	0.15
t2380	0	0.06	0.07	0.04
t2381	0.19	0.52	0.57	0.43
t2386	0.04	0.49	0.14	0.22
t2389	0.45	0.9	0.92	0.76
t2390	0.93	2.07	1.42	1.47
t2391	0.14	0.25	0.03	0.14
t2393	0	0.14	0.15	0.1
t2394	0.56	0.3	0.42	0.43
t2396	0.07	0.11	0.15	0.11
t2398	0.08	0.14	0.12	0.11
t2399	0.01	0.07	0.03	0.04
t2400	0.32	0.05	0.43	0.27
t2401	0.35	0.21	0.55	0.37
t2403	0.22	0.14	0.58	0.31
t2404	0.28	0.13	0.46	0.29
t2405	0.16	0.43	0.13	0.24
t2406	2.71	2.24	1.94	2.3
t2407	0	0.26	0.38	0.21
t2415	0.66	2.97	0.74	1.46
t2417	103.3	258.19	276.83	212.77
t2418	48.74	95.52	68.81	71.02
t2419	105.99	347.1	133.64	195.58
t2420	45.16	178.77	98.53	107.49
t2421	52.92	141.67	88.19	94.26
t2422	0.62	1.13	0.99	0.91
t2423	0	0.09	0	0.03
t2424	0.08	0.17	0.96	0.4

t2425	0.09	0.12	0.49	0.23
t2426	0	0.24	0.31	0.18
t2427	0.15	0.12	0.13	0.13
t2428	1.41	0.91	0.24	0.85
t2433	0.19	0.03	0.09	0.1
t2434	0.21	0.11	0.15	0.16
t2435	0.17	0	0.25	0.14
t2436	0.03	0.03	0.1	0.05
t2437	0	0.03	0.13	0.05
t2442	0.09	0.5	0.39	0.33
t2448	0.04	0.39	0.66	0.36
t2448	0.04	0.39	0.66	0.36
t2449	1.16	0.2	1.08	0.81
t2451	1.8	0.07	0.42	0.76
t2452	0.39	0.63	0.57	0.53
t2453	0	0.06	0.14	0.07
t2454	0.25	0	0.08	0.11
t2457	0.83	1.16	0.83	0.94
t2460	0.04	0.27	0.28	0.2
t2461	3.52	9.11	2.98	5.2
t2470	0.92	0.71	1.02	0.88
t2471	0.1	0.08	0.2	0.13
t2473	1.3	0.59	1.28	1.06
t2475	0	0.47	1.38	0.62
t2477	0	0.13	0.07	0.07
t2481	10.97	16.25	40.15	22.46
t2482	0.27	0.21	0.31	0.26
t2483	0.07	0.1	0.07	0.08
t2485	0.93	0.51	0.45	0.63
t2486	0.49	0.28	0.4	0.39
t2487	0.08	0.11	0.16	0.12
t2488	0.07	0.12	0.35	0.18
t2490	0.08	0.14	0.05	0.09
t2496	0.05	0.23	0.14	0.14
t2498	0.75	0.88	0	0.54
t2502	2.39	0.63	1.29	1.44
t2503	0.34	0.09	0.35	0.26
t2503	0.12	0.14	0.45	0.24
t2504	0.05	0.06	0.33	0.15
t2504	0.11	0.07	0.15	0.11
t2505	0	0.24	0.29	0.18
t2508	0.44	0.17	0.29	0.3
t2509	0.03	1.32	0.01	0.45
t2510	0	0.05	0.06	0.04
t2511	0	0.14	0.18	0.11
t2512	0	0.12	0	0.04
t2513	0	0.11	0	0.04
t2514	0	0.08	0.3	0.13
t2515	0	0.05	0.06	0.04
t2516	0.12	0.12	0.16	0.13
t2517	0	0.19	0.16	0.12
t2518	0.06	0.13	0.52	0.24
t2519	0	0	0	0

t2520	0.03	0.43	0.37	0.28
t2521	0.04	0.13	0.3	0.16
t2524	0.1	0.16	0.14	0.13
t2526	0	0.37	0	0.12
t2532	0.14	0.46	0.91	0.5
t2535	1.05	0.39	1.15	0.86
t2536	0.05	0.06	0.16	0.09
t2538	0.52	0.96	0.81	0.76
t2539	0.86	1.35	1.24	1.15
t2541	0.08	0.15	0.46	0.23
t2542	0.11	0.27	0.27	0.22
t2543	1.12	1.27	1.41	1.27
t2544	0.48	1.88	1.79	1.38
t2545	0.04	0.07	0.33	0.15
t2547	0.47	0.48	1.18	0.71
t2549	0.04	0.07	0.05	0.05
t2550	0.26	0.31	0.27	0.28
t2551	0	0.17	0.16	0.11
t2552	0.09	0	1.22	0.44
t2552	0.09	0	1.22	0.44
t2553	0	0.09	0	0.03
t2555	0	0.62	0.76	0.46
t2555	0	0.62	0.76	0.46
t2556	0.06	0.09	0.24	0.13
t2557	0.05	0.15	0.34	0.18
t2560	0.05	0.19	0.55	0.26
t2560	0.05	0.19	0.55	0.26
t2561	0.05	0.22	0.13	0.13
t2563	0	0.08	0.11	0.06
t2564	0.19	0.33	0.05	0.19
t2565	0	0.21	0.59	0.27
t2567	0	0.21	0.1	0.1
t2568	0.07	1.09	0.04	0.4
t2570	0.06	0.05	0	0.04
t2572	0.61	0	0.97	0.53
t2573	0	0.05	0.14	0.06
t2574	0.02	0.08	0.38	0.16
t2575	0	0	0.13	0.04
t2576	0	0.14	0.13	0.09
t2577	0.03	0.12	0.08	0.08
t2578	0.03	0.04	0.05	0.04
t2578	0.03	0.04	0.05	0.04
t2579	0	0.49	0.12	0.2
t2580	0.15	0.13	0.18	0.15
t2581	0.32	0.11	0.45	0.29
t2582	0.05	0.07	0.17	0.1
t2583	0	0	0.06	0.02
t2584	0.05	0.09	0	0.05
t2585	0	0.06	0	0.02
t2586	0.12	0.16	0.31	0.2
t2587	0.06	0	0.17	0.08
t2587	0.06	0	0.17	0.08
t2588	0.13	0.24	0.17	0.18

t2589	0	0	0.33	0.11
t2590	0	0.24	0.19	0.14
t2592	0	0	0.1	0.03
t2593	0.07	0.07	0.12	0.09
t2594	0.19	0.16	0.24	0.2
t2595	0.11	0	0.25	0.12
t2596	0	0.02	0.06	0.03
t2597	0.07	0.08	0.07	0.07
t2598	0	0.06	0.07	0.04
t2599	0.32	0.06	0.17	0.18
t2603	0.54	1.15	1.2	0.96
t2604	0.72	1.27	0.68	0.89
t2606	0.16	0.4	0.17	0.24
t2607	0.27	0.22	0.96	0.48
t2608	0.02	0.08	0.08	0.06
t2609	0.03	0.05	0.22	0.1
t2610	0.46	0.34	0.46	0.42
t2617	0.31	0.32	0.18	0.27
t2619	0.46	0.64	0.93	0.68
t2620	14.26	6.09	44.42	21.59
t2623	0.15	0.1	0.14	0.13
t2626	0.05	0.2	0.22	0.16
t2627	0.08	0.12	0.15	0.12
t2633	0.31	0.25	0.76	0.44
t2634	0.17	0.12	0.15	0.15
t2635	0.36	0.39	0.23	0.33
t2637	0.3	0.41	1.81	0.84
t2640	0	0.09	0.11	0.07
t2641	0.3	0.69	0.37	0.45
t2644	0.19	0.1	0.29	0.19
t2645	0.01	0.07	0.18	0.09
t2646	0.31	0.18	0.3	0.26
t2657	0.95	0.75	0.91	0.87
t2657	0.95	0.75	0.91	0.87
t2658	2.26	0.7	1.21	1.39
t2658	2.26	0.7	1.21	1.39
t2659	0	0.51	2.75	1.09
t2659	0	0.51	2.75	1.09
t2660	0	0	0	0
t2660	0	0	0	0
t2661	0	0	0	0
t2661	0	0	0	0
t2662	0	0	0	0
t2662	0	0	0	0
t2663	0	0	0	0
t2663	0	0	0	0
t2664	0	0	0	0
t2664	0	0	0	0
t2665	0	0	0	0
t2665	0	0	0	0
t2666	0	0	0	0
t2666	0	0	0	0
t2667	0	0	0	0

t2667	0	0	0	0
t2668	0.02	0.06	0.23	0.1
t2669	0.11	0.03	0.18	0.11
t2670	0.48	0.06	0.17	0.24
t2671	0.05	0.13	0.26	0.15
t2673	0	0.2	0	0.07
t2674	0	0.19	0.29	0.16
t2674	0	0.19	0.29	0.16
t2676	0.57	6.08	1.01	2.55
t2677	0.78	0.59	1.1	0.82
t2677	0.78	0.59	1.1	0.82
t2678	0.23	0.21	0.42	0.29
t2680	0	0	0.24	0.08
t2681	0.03	0.08	0.24	0.12
t2682	0.03	0.17	0.15	0.12
t2683	0.31	0.14	0.2	0.22
t2685	0.09	0.18	0.57	0.28
t2689	0.04	0.04	0.23	0.1
t2690	0	0.15	0.47	0.21
t2690	0	0.15	0.47	0.21
t2691	0.3	0.42	0.77	0.5
t2692	0.11	0.19	1.33	0.54
t2693	0.12	0.33	0.44	0.3
t2694	6.91	7.93	10.97	8.6
t2696	0.22	0.71	1.37	0.77
t2697	2.92	1.76	4.24	2.97
t2698	0.8	0.17	0.76	0.58
t2699	0.09	0.16	0.34	0.2
t2699	0.09	0.16	0.34	0.2
t2700	0.11	0.06	0.22	0.13
t2701	0	0	0.17	0.06
t2702	0	0	0.27	0.09
t2709	0.52	0.18	0.42	0.37
t2710	0.36	2.1	0.88	1.11
t2713	0.01	0.06	0.02	0.03
t2716	0.12	0.31	0.67	0.37
t2717	0.2	0.04	0.37	0.2
t2729	0.1	0.06	0	0.05
t2731	0.08	0.1	0.23	0.14
t2738	0	0.93	2.14	1.02
t2740	0.04	0.14	0.33	0.17
t2741	0.23	0.05	0.17	0.15
t2742	0.13	0.06	0.12	0.1
t2743	0.02	0.06	0.18	0.09
t2744	1.44	0.73	1.39	1.19
t2745	0	0.04	0.06	0.03
t2746	0.12	0.06	0.2	0.13
t2748	0.25	0.09	0.94	0.43
t2749	0.06	0.17	0.38	0.2
t2750	0.04	0.27	0.42	0.24
t2751	0.11	0.06	0.16	0.11
t2752	0.09	0.05	0.05	0.06
t2753	0.1	0.05	0.15	0.1

t2754	0.08	0.08	0.15	0.1
t2755	0	0.05	0.54	0.2
t2756	1.45	0.86	0.57	0.96
t2757	2.78	2.37	4.2	3.12
t2758	2.85	2.13	5.58	3.52
t2759	1.93	1.13	1.99	1.68
t2760	0.64	0.22	0.7	0.52
t2762	0	0	0.09	0.03
t2767	47.35	34.56	30.59	37.5
t2768	0.51	3.39	0.72	1.54
t2769	1.66	5.69	2.32	3.22
t2770	1.67	8.36	2.56	4.2
t2783	0.1	0.5	0.46	0.35
t2798	0.18	0.98	1.13	0.76
t2801	1.07	3.68	5.74	3.5
t2803	0.51	0	0.63	0.38
t2804	0.6	1.36	0.88	0.95
t2805	0.09	0.25	0.43	0.26
t2806	0.38	0.11	0.58	0.36
t2806	0.38	0.11	0.58	0.36
t2807	0	0.04	0.09	0.04
t2808	0.62	0.24	0.14	0.33
t2809	2.7	5.1	0.62	2.81
t2811	0	0.26	0.1	0.12
t2812	0.04	0.06	0.15	0.08
t2813	0.19	0.27	0.25	0.24
t2814	0.06	0.09	0.22	0.12
t2815	0.01	0	0.11	0.04
t2816	0	0.15	0.32	0.16
t2817	0.08	0.04	0.24	0.12
t2818	0.04	0.03	0.23	0.1
t2818	0.04	0.03	0.23	0.1
t2819	0	0.06	0.12	0.06
t2819	0	0.06	0.12	0.06
t2821	0.12	0	0.07	0.06
t2822	0	0	0.05	0.02
t2823	2.12	0.57	11.22	4.64
t2824	8.81	1.33	21.99	10.71
t2829	0	0.38	0.36	0.25
t2832	0.28	0.49	0.46	0.41
t2833	0.07	0.42	0.08	0.19
t2838	0.22	0.08	0	0.1
t2839	0.11	0.03	0.17	0.1
t2840	0.07	0.23	0.3	0.2
t2841	0.07	0.16	0.13	0.12
t2842	0.05	0.05	0.18	0.09
t2843	0	0.14	0.05	0.06
t2844	0.13	0.06	0.2	0.13
t2845	0.03	0.06	0.15	0.08
t2846	0.09	1.97	0.16	0.74
t2850	0.63	0.62	1.49	0.91
t2851	0.23	0.24	0.58	0.35
t2852	0.16	0.23	0.78	0.39

t2853	17.37	28.87	23.7	23.31
t2855	0.03	0.15	0.08	0.09
t2862	0.04	0.11	0.14	0.1
t2863	0	0.06	0.28	0.11
t2864	0	0.8	1.06	0.62
t2866	0.04	0.23	0.2	0.16
t2868	0.17	0.08	2.84	1.03
t2869	0.17	0.13	3.04	1.11
t2870	0.09	0.07	6.77	2.31
t2871	0.57	0.6	2.4	1.19
t2872	0.11	0.32	0.32	0.25
t2873	0.11	0.2	0.19	0.17
t2874	0.07	0.07	0	0.05
t2876	0.16	0.36	0.59	0.37
t2877	1.53	0.78	1.08	1.13
t2878	0.61	1.82	0.73	1.05
t2888	0.24	0.44	0.32	0.33
t2889	0.12	0.04	0.09	0.08
t2891	0.85	0.37	0.23	0.48
t2892	0.1	0.04	0.13	0.09
t2893	0.21	0.05	0	0.09
t2894	0.63	0.72	0.43	0.59
t2895	0.42	0.16	0.16	0.25
t2906	0	0.06	0	0.02
t2913	0.63	0.82	1.13	0.86
t2915	0.47	0.43	1.1	0.67
t2916	0.6	0.33	0.87	0.6
t2917	0.74	0.47	0.67	0.63
t2918	0.25	0.13	0.37	0.25
t2922	0.29	0.19	0.63	0.37
t2925	0.27	0.26	0.97	0.5
t2929	0.28	0.4	0.61	0.43
t2930	0.1	0	0.19	0.1
t2931	0.37	0.58	0.25	0.4
t2932	0.58	0.31	0.63	0.51
t2933	0	0.09	0.43	0.17
t2934	0.37	0.27	0.15	0.26
t2935	0.06	0	0.02	0.03
t2936	0.05	0.05	0.12	0.07
t2937	0.07	0.17	0.17	0.14
t2938	0.06	0.03	0.16	0.08
t2939	0.07	0.02	0.2	0.1
t2940	0.04	0.29	0.15	0.16
t2941	0.53	0.3	1.2	0.68
t2946	0.38	0.37	0.22	0.32
t2956	0.24	0.3	0.22	0.25
t2957	0.2	0.24	0.58	0.34
t2963	1.84	3.73	2.35	2.64
t2964	0.63	0.26	0.76	0.55
t2965	0.75	1.42	2.58	1.58
t2966	0.19	0.23	1.02	0.48
t2967	0.43	0.44	0.71	0.53
t2968	0	0.18	0.19	0.12

t2970	0.03	0.14	0.16	0.11
t2974	0.05	0.11	0.27	0.14
t2977	0.12	0.5	0.61	0.41
t2978	0.77	2.16	0.47	1.13
t2979	0.04	0.04	0.18	0.09
t2983	0.06	0.57	1.04	0.56
t2984	0.11	0.14	0.28	0.18
t2985	0.12	0.23	0.26	0.2
t2987	58.9	93.5	206.37	119.59
t2988	25.65	36.66	151.14	71.15
t2990	0	0.11	0.07	0.06
t2991	0.23	0.11	0.1	0.15
t2992	0	0.11	0.18	0.1
t2993	0	0.04	0.18	0.07
t2994	0.17	0	0.34	0.17
t2997	0.24	0.67	0.24	0.38
t3000	0.18	0	0.04	0.07
t3001	0	0.35	0.01	0.12
t3004	0.17	0.1	0	0.09
t3006	0.27	0.32	0.23	0.27
t3008	0.08	0.46	0.33	0.29
t3009	0.17	0.12	0.22	0.17
t3010	0.07	0.06	0.31	0.15
t3012	0.13	0.47	0.43	0.34
t3013	0.13	0.16	0.13	0.14
t3014	0.7	0.76	2.02	1.16
t3015	0.56	0.84	1.4	0.93
t3016	0.08	0.14	0.29	0.17
t3017	0.08	0.14	0.09	0.1
t3020	0.16	0.61	0.4	0.39
t3021	0.14	2.22	0.25	0.87
t3022	0.32	0.53	0.2	0.35
t3024	0.42	1.57	1.25	1.08
t3028	0.01	0.03	0.17	0.07
t3031	0	0	0.07	0.02
t3032	0.2	0.2	0	0.13
t3033	0	0	0	0
t3034	0	0	0.12	0.04
t3039	0	0.26	0	0.09
t3040	0	0.19	0.77	0.32
t3041	0	0	0.06	0.02
t3042	0	0.04	0	0.01
t3043	0.14	0	0	0.05
t3044	0.03	0.22	0.06	0.1
t3045	0	0	0.13	0.04
t3047	0.43	0.1	0.38	0.3
t3048	0.11	0.19	0.25	0.18
t3049	0.34	0.09	0	0.14
t3050	0.12	0.09	0.38	0.2
t3051	0.06	0.17	0.12	0.12
t3052	0.14	0	0.22	0.12
t3053	0.03	0.08	0.24	0.12
t3054	0	0.11	0.12	0.08

t3059	0.64	2.67	2.4	1.9
t3061	0.23	0.12	0.1	0.15
t3062	0.09	0.03	0.36	0.16
t3063	0	0.02	0.06	0.03
t3064	0.5	0.27	0.43	0.4
t3065	0.31	0.58	0.24	0.38
t3066	0.4	1.34	0.62	0.79
t3067	3.94	2.66	4.08	3.56
t3068	2.18	2.43	4.86	3.16
t3069	0.05	0.19	0.23	0.16
t3069	0.34	0.56	0.51	0.47
t3070	0.99	1.11	1.83	1.31
t3071	2.93	2.6	2.29	2.61
t3072	0.08	0.63	0.3	0.34
t3074	0.1	0.05	0.11	0.09
t3075	0.86	3.07	4.12	2.68
t3076	0.31	1.66	0.6	0.86
t3077	0.08	0.14	0.2	0.14
t3080	0.44	0.18	0	0.21
t3083	0.17	0.33	0.38	0.29
t3084	0.39	0.85	1.11	0.78
t3085	0.22	0.44	0.27	0.31
t3086	0.05	0.06	0.3	0.14
t3087	0.21	0.4	0.65	0.42
t3088	0.16	0.14	0.17	0.16
t3089	0.05	0.15	0.21	0.14
t3090	0.31	0.2	0.26	0.26
t3091	0.06	0.16	0.17	0.13
t3092	0.17	0.23	0.9	0.43
t3096	0	0.03	0.46	0.16
t3097	0.2	0.66	1.12	0.66
t3098	0.1	0.11	0.19	0.13
t3099	0.15	0.11	0.16	0.14
t3100	0.15	0.36	0.19	0.23
t3101	0.97	0.89	0.92	0.93
t3103	0	0.39	0.1	0.16
t3104	0.13	0.69	0.17	0.33
t3105	0.62	0.41	0.26	0.43
t3106	0.33	0.67	0.52	0.51
t3108	0.49	1.01	0.85	0.78
t3109	0.26	0.6	0.61	0.49
t3110	0.31	0.43	0.9	0.55
t3111	0.23	0.12	0.17	0.17
t3112	0.08	0.19	0.23	0.17
t3116	0.2	0.38	0.57	0.38
t3118	0.2	0.36	0.63	0.4
t3119	0.18	0.09	0.33	0.2
t3122	0.12	0.15	0.26	0.18
t3123	0.08	1.22	1.63	0.98
t3127	0.49	0.57	0.6	0.55
t3128	0.19	0.27	0.12	0.19
t3134	0.06	0.09	0.33	0.16
t3135	2.08	1.95	3.97	2.67

t3138	0.02	0.04	0.12	0.06
t3139	0.09	0.15	0.22	0.15
t3140	0.13	0.1	0.13	0.12
t3141	0.18	0.1	0.19	0.16
t3142	0.07	0.08	0.52	0.22
t3143	0.28	0.26	0.4	0.31
t3144	0.08	0.24	0.34	0.22
t3145	0.16	0.2	0.76	0.37
t3146	0.52	0.35	0.35	0.41
t3147	0.52	0.17	0	0.23
t3148	1.06	6	7.41	4.82
t3149	0.42	0.48	0.94	0.61
t3150	0.54	0.45	0.08	0.36
t3151	1.04	0.62	0.3	0.65
t3152	0	0.17	0.06	0.08
t3153	0.16	0.11	0.43	0.23
t3154	3.35	1.26	0.79	1.8
t3155	0.12	0.16	0.38	0.22
t3156	0.03	0.16	0.14	0.11
t3157	0.27	0	0.09	0.12
t3158	0.26	0.1	0.34	0.23
t3159	0.6	0.35	0.86	0.6
t3159	0.6	0.35	0.86	0.6
t3161	0.08	0.08	0.19	0.12
t3161	0.39	0.28	0.49	0.39
t3167	0.24	0.16	3.37	1.26
t3171	0.03	0.19	0.38	0.2
t3174	0	0.05	0.14	0.06
t3177	0.19	0.11	0.24	0.18
t3183	0.3	0.45	0.14	0.3
t3184	0.33	2.16	0.61	1.03
t3185	0.12	0.26	0.39	0.26
t3186	0.65	0.29	1.25	0.73
t3187	0.45	0.81	1.13	0.8
t3188	1.14	0.5	0.62	0.75
t3189	0.72	0.05	0.46	0.41
t3190	0.18	0.05	0.29	0.17
t3191	1.07	0.23	0.7	0.67
t3192	0.3	0.22	0.27	0.26
t3193	0.53	0.74	0.89	0.72
t3194	0.06	0.25	0.12	0.14
t3195	0.05	0	0.28	0.11
t3196	0.31	0.13	0.27	0.24
t3197	0.13	0.12	0.35	0.2
t3199	0.54	1.19	0.8	0.84
t3206	0.22	1.98	0.38	0.86
t3215	19.68	8.45	6.87	11.67
t3218	0.15	0.08	0.16	0.13
t3219	0.06	0.07	0.16	0.1
t3225	0.56	1.19	0.6	0.78
t3226	0.08	0.36	0	0.15
t3227	0.32	0.86	0.82	0.67
t3228	0.16	0.49	0.28	0.31

t3229	0	0.2	0.15	0.12
t3230	0.08	0.16	0.17	0.14
t3231	0.26	0.26	0.29	0.27
t3232	0.41	0.45	0.41	0.42
t3233	0.16	0.21	0.25	0.21
t3234	0.45	0.99	1.19	0.88
t3235	0.33	2.56	0.7	1.2
t3236	0.13	0.52	0.49	0.38
t3238	2.53	3.59	6.38	4.17
t3240	0.61	0.91	0.88	0.8
t3242	0.56	0.26	0.39	0.4
t3244	0.92	0.42	1.55	0.96
t3246	0.14	0.03	0.06	0.08
t3249	0.02	0.14	0.14	0.1
t3252	0.29	0.09	1.14	0.51
t3253	0.22	0.03	1.06	0.44
t3254	0.26	0.1	1.13	0.5
t3254	0.26	0.1	1.13	0.5
t3255	0.25	0.07	0.84	0.39
t3257	0.08	0.2	0.26	0.18
t3262	0.12	0.15	0.19	0.15
t3263	0.77	0.69	1	0.82
t3269	0.11	0.22	0.32	0.22
t3270	0.1	0.47	0.03	0.2
t3271	0.13	0.13	0.36	0.21
t3272	0.23	0.12	0.38	0.24
t3273	0.06	0.18	0.1	0.11
t3274	309.22	508.66	1372.63	730.17
t3276	0.07	0.31	0.11	0.16
t3277	0.27	0	0.22	0.16
t3278	0.09	0	0	0.03
t3279	0.25	0.44	0.66	0.45
t3280	0.37	0.38	0.33	0.36
t3281	2.08	4.62	5.57	4.09
t3282	0.03	0.15	0.15	0.11
t3284	0.08	0.04	0.11	0.08
t3286	0.13	0.12	0.4	0.22
t3290	0.07	0.41	0.5	0.33
t3291	0.31	0.29	0.35	0.32
t3292	0.39	1.88	0.64	0.97
t3293	0.33	0.47	0.74	0.51
t3296	0.1	0.36	0.67	0.38
t3299	0.18	0.61	0.07	0.29
t3301	0.2	0.11	0.44	0.25
t3302	0.11	0.1	0.31	0.17
t3305	0.77	0.8	1.63	1.07
t3313	0.08	0.26	0.1	0.15
t3317	0.31	0.1	0.47	0.29
t3318	5.62	6.12	6.24	5.99
t3319	0.28	0.56	0.69	0.51
t3321	0.29	0.55	0.53	0.46
t3326	0.12	0.3	0.28	0.23
t3328	0.13	0.17	0.48	0.26

t3330	0.34	0.47	0.45	0.42
t3331	0.57	0.42	0.31	0.43
t3334	0.05	0.05	0.25	0.12
t3335	0.03	0.05	0.04	0.04
t3341	0.04	0.1	0.13	0.09
t3343	0.1	0.28	0.07	0.15
t3344	0	0.64	0.08	0.24
t3347	0.03	0.07	0.21	0.1
t3349	0.2	0.11	0.08	0.13
t3351	0.26	0.45	0.33	0.35
t3352	0.13	0.02	0.39	0.18
t3353	0.24	0.26	0.27	0.26
t3355	0.13	0.26	1.11	0.5
t3356	0.04	0.09	0.11	0.08
t3357	0	0	0.19	0.06
t3367	0.52	0.4	2.01	0.98
t3368	0.1	0.1	0.11	0.1
t3369	0.13	0.2	0.74	0.36
t3370	0.08	0.13	0.16	0.12
t3371	0.09	0.09	0.24	0.14
t3379	0.14	0.23	0.14	0.17
t3382	0.28	0.6	0.43	0.44
t3385	0.03	0.02	0.17	0.07
t3386	0	0.23	0.17	0.13
t3387	0.06	0.31	0.51	0.29
t3391	0.23	0.55	0.11	0.3
t3392	0.18	0.3	0.31	0.26
t3399	1.11	1.89	2.96	1.99
t3400	0	0.07	0.21	0.09
t3400	0	0.07	0.21	0.09
t3401	0.16	0.27	0	0.14
t3401	0.16	0.27	0	0.14
t3403	0.11	0.13	0.39	0.21
t3405	0	0.11	0.13	0.08
t3406	0.09	0.24	0.19	0.17
t3407	0	0.31	0.24	0.18
t3408	0	0	0.03	0.01
t3410	0.02	0.1	0.13	0.08
t3411	0.11	0.38	0.31	0.27
t3412	0.8	1.18	1.29	1.09
t3412	0.8	1.18	1.29	1.09
t3413	0.82	2.09	2.6	1.84
t3413	0.82	2.09	2.6	1.84
t3414	0.75	1.67	1.11	1.18
t3415	0.09	0.91	0.61	0.54
t3416	0.2	0.25	0.37	0.27
t3416	0.2	0.25	0.37	0.27
t3418	0.08	0.25	0.2	0.18
t3421	0.05	0.05	0.06	0.05
t3422	0	0	0.6	0.2
t3423	0	0	0	0
t3424	0	0.1	0.19	0.1
t3425	0.06	0	0.49	0.18

t3426	0	0	0.14	0.05
t3427	0.01	0.1	0.31	0.14
t3428	0.06	0.06	0.16	0.09
t3429	0	0.12	0.08	0.07
t3432	0	0	0	0
t3433	0.18	0.32	0.4	0.3
t3434	0	0.08	0.4	0.16
t3435	0.2	0.16	0.2	0.19
t3435	0.2	0.16	0.2	0.19
t3438	0	0	0	0
t3439	0	0	0	0
t3440	0	0	0	0
t3441	0	0	0	0
t3442	0	0	0	0
t3443	0	0	0	0
t3444	0	0	0	0
t3445	0	0	0	0
t3448	1.05	2.23	1.79	1.69
t3449	0.27	0.27	1.22	0.59
t3457	1.05	0.79	1.23	1.02
t3458	2.27	2.47	1.8	2.18
t3459	0.54	0.69	1.87	1.03
t3460	0.06	0.35	0.47	0.29
t3462	0.04	0.34	0.34	0.24
t3463	0.14	0.04	0.31	0.16
t3465	0.08	0.14	0.08	0.1
t3466	2.36	2.35	2.76	2.49
t3486	0	2.89	0.17	1.02
t3497	0.41	0.5	0.29	0.4
t3498	0.14	0.57	0.45	0.39
t3499	1.49	4.54	3.7	3.24
t3505	4.43	4.56	8.87	5.95
t3506	0.1	0.44	0.29	0.28
t3507	0.22	0.18	0.25	0.22
t3508	0.25	0.11	0.19	0.18
t3512	0.1	0.14	0.17	0.14
t3514	0.02	0.08	0.29	0.13
t3515	0.08	0.03	0.04	0.05
t3516	0.31	0.47	0.21	0.33
t3520	0.01	0.08	0.36	0.15
t3521	0.01	0.1	0.32	0.14
t3530	2.65	8.59	18.07	9.77
t3533	0.09	0.22	0.27	0.19
t3535	0.25	0.41	0.07	0.24
t3536	0.04	0.15	0.4	0.2
t3537	27.14	63.38	34.43	41.65
t3538	1.56	1.6	7.12	3.43
t3539	0.74	1.49	0.24	0.82
t3540	1.61	6.52	5.25	4.46
t3541	2.14	1.89	6.49	3.51
t3542	0.25	0.36	0.65	0.42
t3543	0.14	0.16	0.29	0.2
t3544	0.85	0.35	1.32	0.84

t3545	0.7	0.19	0.86	0.58
t3546	0.43	0.24	0.88	0.52
t3547	0.26	0.75	0.84	0.62
t3549	1.5	1.21	0.99	1.23
t3549	1.5	1.21	0.99	1.23
t3550	0.39	0.28	0.26	0.31
t3551	0.14	0.13	0.07	0.11
t3552	0.03	0.1	0.13	0.09
t3553	0	0	0.14	0.05
t3554	0.08	0.11	0.06	0.08
t3557	6.96	4.69	9.5	7.05
t3558	0.07	0.15	0.34	0.19
t3562	0.15	0.16	0.3	0.2
t3563	0.19	0.49	0.3	0.33
t3565	0.02	0.03	0.07	0.04
t3566	0.13	0.19	0.23	0.18
t3567	0.14	0.21	0.63	0.33
t3568	0	0.3	0.09	0.13
t3576	0.91	0.85	2.17	1.31
t3577	0.32	0.35	0.43	0.37
t3578	0.1	0.11	0.28	0.16
t3579	0	0.08	0.12	0.07
t3580	0.02	0.09	0.12	0.08
t3581	0.02	0.05	0.06	0.04
t3582	0.96	0.89	0.91	0.92
t3583	44.66	18.86	129.92	64.48
t3584	42.02	14.8	67	41.27
t3585	12.38	14.92	19.2	15.5
t3586	5.18	7.64	5.91	6.24
t3587	0.28	1.21	1.2	0.9
t3588	0.34	2.42	1.34	1.37
t3589	0.21	0.22	0.35	0.26
t3590	0.6	1.59	1.14	1.11
t3591	0.94	1.33	1.71	1.33
t3592	0.27	0.73	1.1	0.7
t3593	0.18	0.16	0.14	0.16
t3595	0.18	1.03	0.32	0.51
t3596	0.18	0.18	0.34	0.23
t3597	0.13	0.1	0.33	0.19
t3598	0.1	0.03	0.1	0.08
t3599	0.07	0.03	0.11	0.07
t3600	0.14	0.11	0.32	0.19
t3601	0.3	0.09	0.24	0.21
t3602	0.06	0.1	0.3	0.15
t3603	0.25	0.24	0.44	0.31
t3604	0.02	0.12	0.08	0.07
t3605	0	0.14	0.04	0.06
t3606	0.06	0.18	0	0.08
t3607	0.08	0.15	0.11	0.11
t3608	0.08	0.12	0.1	0.1
t3609	0.06	0.16	0.08	0.1
t3610	0.05	0.2	0.07	0.11
t3611	0.16	0.18	0.29	0.21

t3612	0.16	0.41	0.55	0.37
t3618	0.54	0.74	1.19	0.82
t3619	11.76	14.35	47.33	24.48
t3622	0.19	0.15	0.43	0.26
t3624	0.86	1.02	1.22	1.03
t3625	0.98	4.88	2.2	2.69
t3631	0.03	0.23	0.38	0.21
t3632	1.1	0.84	1.42	1.12
t3640	0.18	0.13	0.27	0.19
t3641	0.28	0.15	0.42	0.28
t3656	0.15	0.35	0.27	0.26
t3659	0.04	0.08	0.05	0.06
t3662	0.11	0.13	0.26	0.17
t3663	0.21	0.04	0.27	0.17
t3664	0.06	0.12	0.11	0.1
t3665	1.02	0.5	1.55	1.02
t3671	0.78	0.19	0.46	0.48
t3672	0.23	0.39	1.24	0.62
t3673	0.31	0.36	0.41	0.36
t3674	0.06	0.24	0.17	0.16
t3675	0.39	0.21	0.7	0.43
t3676	0.18	0.11	0.4	0.23
t3678	0.27	2.55	0.33	1.05
t3685	0.26	0.13	0.35	0.25
t3686	0.02	0.08	0.31	0.14
t3687	0.07	0.29	0.2	0.19
t3688	0.44	0.53	1.19	0.72
t3689	0.3	0.21	0.21	0.24
t3690	0.1	0.08	0.08	0.09
t3691	0.07	0.02	0.16	0.08
t3692	0.19	0.13	0.15	0.16
t3693	0.36	0.56	0.5	0.47
t3695	0.18	0.13	0.34	0.22
t3696	0.23	0.18	0.23	0.21
t3697	0	0.02	0.09	0.04
t3698	0.05	0.11	0.04	0.07
t3703	0	0	0	0
t3704	0	0	0	0
t3706	0	0	0	0
t3707	0.13	0.04	0.24	0.14
t3708	0.86	0.31	0.24	0.47
t3711	0.06	0.19	0.12	0.12
t3712	0	0	0.19	0.06
t3713	0.34	0.52	0.48	0.45
t3714	0.03	0.2	0.59	0.27
t3718	0.35	0.26	0.25	0.29
t3720	0.33	0.13	0.2	0.22
t3720	0.33	0.13	0.2	0.22
t3724	0.59	0.86	0.66	0.7
t3725	0.09	0.15	0.44	0.23
t3726	0.1	0.25	0.35	0.23
t3727	0.23	0.11	0.21	0.18
t3732	0.05	0.1	0.51	0.22

t3733	0.2	1.01	0.31	0.51
t3734	0	0.29	0.38	0.22
t3735	0.08	0.44	0.46	0.33
t3736	0.33	0.47	0.71	0.5
t3737	0.17	0.08	0.22	0.16
t3738	0.03	0.14	0	0.06
t3739	0.09	0.09	0.36	0.18
t3740	0	0.09	0.34	0.14
t3741	0	0.34	0.1	0.15
t3741	0	0.34	0.1	0.15
t3742	0.06	0.12	0.3	0.16
t3743	0.1	0.18	0.31	0.2
t3744	0.3	0	0.1	0.13
t3745	0.12	0.07	0.15	0.11
t3746	0	0.07	0.37	0.15
t3747	0	0.16	0.22	0.13
t3748	0.16	0.08	0.24	0.16
t3749	0.11	0.1	0.08	0.1
t3750	0.06	0.04	0.05	0.05
t3751	0.03	0.03	0.11	0.06
t3752	0.08	0.19	0.71	0.33
t3753	2.35	0.51	2.13	1.66
t3756	0.4	0.1	1.96	0.82
t3757	1.2	1.15	0.77	1.04
t3758	0.11	0.14	0.14	0.13
t3759	0.05	0.09	0.37	0.17
t3760	0.18	0.08	0.15	0.14
t3760	0.18	0.08	0.15	0.14
t3761	0	0.08	0.36	0.15
t3762	0	0	0	0
t3762	0	0	0	0
t3763	0	0	0	0
t3764	0.15	0.16	0.28	0.2
t3765	0.03	0.01	0.11	0.05
t3765	0.03	0.01	0.11	0.05
t3766	0.12	0.08	0.16	0.12
t3767	0.07	0.28	0.17	0.17
t3770	0.13	0.16	0.23	0.17
t3771	0.1	0.23	0.13	0.15
t3772	0.38	0.23	0.43	0.35
t3779	0.13	0.16	0.11	0.13
t3780	0.19	0.17	0.2	0.19
t3781	0.43	0.12	0.94	0.5
t3782	0.62	0.5	0.56	0.56
t3783	0.25	0.25	0.52	0.34
t3786	0.1	0.96	0.22	0.43
t3788	0.46	1.31	0.65	0.81
t3789	0.07	0.13	0.05	0.08
t3798	0	0.92	0.08	0.33
t3799	0.04	1.15	0.1	0.43
t3812	0.21	0.12	0.06	0.13
t3813	0.16	0.15	0.21	0.17
t3814	0.22	0.23	0.3	0.25

t3816	0.53	0.82	0.21	0.52
t3819	7.2	2.4	2.77	4.12
t3821	2.22	4.22	6.29	4.24
t3821	2.22	4.22	6.29	4.24
t3822	0.24	0.28	1.33	0.62
t3823	0.06	0.09	0.15	0.1
t3824	0.29	0.38	0.28	0.32
t3825	0.22	0.1	0.29	0.2
t3825	6.19	0.36	5.47	4.01
t3826	0.09	0.17	0.32	0.19
t3826	1.52	0.27	1.93	1.24
t3828	0.04	0.1	0.24	0.13
t3829	0	0.06	0.04	0.03
t3830	0.23	1.95	0.08	0.75
t3831	0	0.35	0.27	0.21
t3835	0.12	0.31	0.31	0.25
t3838	0.08	0.12	0.18	0.13
t3840	0.11	0.18	0.35	0.21
t3841	0	0.09	0.15	0.08
t3842	0.07	0	0.53	0.2
t3843	0.06	0.06	0.09	0.07
t3844	0	0.02	0.18	0.07
t3845	0.05	0.07	0.02	0.05
t3846	0	0.09	0.23	0.11
t3846	0	0.09	0.23	0.11
t3847	0.12	0	0.21	0.11
t3848	0	0	0.2	0.07
t3849	0.17	0.09	0.25	0.17
t3850	0.05	0.28	0.25	0.19
t3851	0.02	0.05	0.04	0.04
t3852	0.03	0.14	0.23	0.13
t3853	0.77	0.45	0.9	0.71
t3856	0.22	0.82	0.37	0.47
t3860	0	0	0	0
t3861	0.99	0.57	0.58	0.71
t3861	0.99	0.57	0.58	0.71
t3862	0	0.08	0	0.03
t3865	0	0.15	0.07	0.07
t3866	0.05	0.19	0.14	0.13
t3867	0.23	0.4	0.21	0.28
t3868	0.19	0.76	0.54	0.5
t3869	0.62	1.78	0.4	0.93
t3871	0	0.08	0.07	0.05
t3872	0.4	0.33	0.31	0.35
t3873	0.32	0.2	0.33	0.28
t3874	0.62	1.93	1.26	1.27
t3876	0.44	0.54	1.48	0.82
t3878	1.17	0.52	0.76	0.82
t3879	0.07	0.08	0.15	0.1
t3881	0.07	0.39	0	0.15
t3882	0.07	0.19	0.2	0.15
t3883	0.07	0.16	0.2	0.14
t3884	0.71	0.27	0.6	0.53

t3890	0.33	0.19	0.7	0.41
t3891	0.68	0.65	0.5	0.61
t3892	0.47	0.12	0.36	0.32
t3892	0.47	0.12	0.36	0.32
t3893	0.22	0.15	0.23	0.2
t3894	0.25	0.25	0.32	0.27
t3895	0.32	0.26	0.39	0.32
t3896	0.12	0.18	0.57	0.29
t3897	0.12	0.03	0.08	0.08
t3898	0.09	0.06	0.2	0.12
t3899	0.12	0.31	0.45	0.29
t3900	0.28	0.04	0.38	0.23
t3901	0.06	0.05	0.2	0.1
t3902	0.15	0.09	0.21	0.15
t3904	0.21	0.2	0.21	0.21
t3906	0.24	0.89	1.27	0.8
t3907	0.09	0.11	0.16	0.12
t3908	0.19	0.1	0.24	0.18
t3909	1.25	1.13	2.16	1.51
t3910	0.03	0.1	0.29	0.14
t3911	0.08	0.08	0.11	0.09
t3913	0.24	0.4	0.29	0.31
t3916	0.54	0.62	0.75	0.64
t3919	0.14	0.49	0.42	0.35
t3920	0	0.09	0.06	0.05
t3921	0	0.14	0.53	0.22
t3923	2.24	1.04	4.35	2.54
t3924	0.39	0.76	0.83	0.66
t3927	0.3	0.5	0.46	0.42
t3928	0.04	0.12	0.13	0.1
t3929	0	0.59	0	0.2
t3930	0.41	0.25	0.8	0.49
t3930	0.41	0.25	0.8	0.49
t3931	0.1	0.36	0.24	0.23
t3932	0.04	0.13	0.99	0.39
t3933	0.02	0.47	0.36	0.28
t3934	0.29	0.17	0.6	0.35
t3935	0.12	0.07	0.17	0.12
t3936	0.12	0.08	0.25	0.15
t3937	0.23	0.14	0.28	0.22
t3939	0.6	0.33	0.5	0.48
t3940	0	0.09	0.31	0.13
t3941	0.36	0.43	0.35	0.38
t3942	0.59	0.65	0.62	0.62
t3943	0.01	0.07	0.15	0.08
t3944	5.48	3.34	8.13	5.65
t3947	0.22	0.32	0.15	0.23
t3948	0.26	0.47	0.16	0.3
t3949	0.82	1.2	2.18	1.4
t3950	0.2	0.44	0.43	0.36
t3955	0.02	0.09	0.14	0.08
t3956	0	0.18	0	0.06
t3957	0.01	0.27	0.08	0.12

t3963	0.11	0.14	0.89	0.38
t3969	0.48	0.31	0.46	0.42
t3972	0.06	0.12	0.42	0.2
t3973	0	0.15	0.16	0.1
t3974	0	0.19	0.18	0.12
t3975	0.21	0.05	0.27	0.18
t3976	0.1	0.23	0.24	0.19
t3977	0.09	0.03	0.18	0.1
t3980	0.16	0.09	0.45	0.23
t3987	0.89	1.65	1.99	1.51
t3988	0.11	0.23	0.26	0.2
t3989	0.03	0.17	0.04	0.08
t3990	5.6	5.45	3.63	4.89
t3995	0.82	2.6	2.2	1.87
t3996	0.85	0.23	0.4	0.49
t3997	0.12	0.18	0.7	0.33
t3998	0.25	0.17	0.3	0.24
t3999	0.04	0	0	0.01
t4001	0.45	0.41	0.39	0.42
t4002	0.2	0.62	0.55	0.46
t4007	0.18	0.13	0.14	0.15
t4010	0.23	0.38	0.43	0.35
t4011	0.23	0.07	1	0.43
t4012	0.11	0.15	0.12	0.13
t4014	0.03	0.03	0.48	0.18
t4015	0.05	0.05	0.19	0.1
t4016	0	0.16	0.18	0.11
t4017	0.06	0	0.22	0.09
t4026	0	0.14	0.18	0.11
t4027	0.11	0.11	0.16	0.13
t4027	0.11	0.11	0.16	0.13
t4029	0.31	0.17	0.03	0.17
t4030	0	0	0.46	0.15
t4031	0.17	0.25	0.21	0.21
t4032	0.02	0.08	0.34	0.15
t4034	0	0	0.24	0.08
t4038	0.16	0.13	0.19	0.16
t4038	0.16	0.13	0.19	0.16
t4040	0.96	1.01	1.5	1.16
t4042	0.11	0.54	0.44	0.36
t4043	0.1	0.21	0.2	0.17
t4043	0.1	0.21	0.2	0.17
t4044	0.58	0.44	1.17	0.73
t4045	0	0.35	0	0.12
t4046	0.08	0.16	0.14	0.13
t4047	0.09	0.13	0.24	0.15
t4049	0.13	0.12	1.47	0.57
t4051	0.05	0.91	0.22	0.39
t4053	0.44	0.51	0.51	0.49
t4054	0.15	0.14	0.53	0.27
t4055	0	0.07	0.16	0.08
t4056	0.88	0.82	0	0.57
t4092	0.4	0.25	0.08	0.24

t4093	0.11	0.37	0.33	0.27
t4099	0.06	0.14	0.27	0.16
t4100	0.33	1.05	0.84	0.74
t4101	0.04	0.05	0.31	0.13
t4102	0.19	0.23	0.18	0.2
t4104	0.35	0.39	0.5	0.41
t4105	0.61	0.68	1.44	0.91
t4109	0.05	0.4	0.85	0.43
t4116	0.04	0.11	0.1	0.08
t4118	0.24	0.41	0.26	0.3
t4119	0.18	1.76	0.52	0.82
t4120	0.17	1.11	0.4	0.56
t4121	0.5	0.24	0.22	0.32
t4123	0.1	0.43	0.49	0.34
t4124	0.15	0.03	0.22	0.13
t4125	0	0.05	0.14	0.06
t4127	10.43	13.59	18.63	14.22
t4128	0	0.17	0.02	0.06
t4129	0	0.03	0.09	0.04
t4130	0	0.05	0.08	0.04
t4131	0.03	0.07	0.16	0.09
t4132	0	0.12	0.22	0.11
t4144	0.09	0.12	0.09	0.1
t4145	0.1	0.5	1.29	0.63
t4146	0.31	0.14	1.97	0.81
t4148	0	0.19	0.12	0.1
t4149	0	0.15	0.06	0.07
t4150	0.47	0.2	0.52	0.4
t4151	2.49	2.01	3.46	2.65
t4156	0.87	1.05	3.2	1.71
t4157	0.24	0.38	1.24	0.62
t4158	2.6	1.36	3.85	2.6
t4159	1.15	0.67	1.4	1.07
t4162	0	0.05	0.15	0.07
t4163	0.02	0.1	0.08	0.07
t4164	0.04	0.14	0.07	0.08
t4165	0	0.09	0.05	0.05
t4168	0.02	0.23	0.21	0.15
t4169	0	0.3	0.21	0.17
t4170	0.09	0.17	0.39	0.22
t4173	0.04	0.09	0.26	0.13
t4174	0.02	0.11	0.22	0.12
t4175	0.03	0.06	0.44	0.18
t4177	0.81	0.7	0.93	0.81
t4178	0.29	0.13	0.41	0.28
t4180	0	0.08	0.29	0.12
t4182	0.1	0.42	0.35	0.29
t4183	0.63	0.37	0.82	0.61
t4184	0.33	0.19	0.33	0.28
t4185	0.34	0.29	0.41	0.35
t4186	0.05	0.05	0.09	0.06
t4187	0.15	0.04	0.11	0.1
t4188	0.09	0.14	0.39	0.21

t4191	0.07	0.29	0.14	0.17
t4192	0.22	0.14	0.36	0.24
t4193	0.4	0.51	0.31	0.41
t4194	0.1	0.19	0.56	0.28
t4195	0.05	0.07	0.07	0.06
t4196	0	0.21	0.26	0.16
t4200	0.56	1.2	1.13	0.96
t4201	0.29	0.18	0.51	0.33
t4202	1.21	3.11	5.94	3.42
t4207	0.6	0.57	0.58	0.58
t4209	0	0.09	0	0.03
t4214	0.07	0.06	0.22	0.12
t4215	0.03	0.1	0.13	0.09
t4216	0.29	0.11	0.41	0.27
t4217	0.15	0.3	0.29	0.25
t4218	0	0.06	0.08	0.05
t4219	0.1	0.26	0.76	0.37
t4220	0.58	1.57	0.75	0.97
t4222	5.43	35.57	3.14	14.71
t4223	0.41	1.2	1.85	1.15
t4224	0.37	0.71	0.4	0.49
t4226	0.08	0.04	0.16	0.09
t4228	0.06	0.13	0.11	0.1
t4229	0.29	0.14	0.1	0.18
t4230	0.04	0.11	0.11	0.09
t4231	0.04	0.27	0.28	0.2
t4232	0.06	0.09	0.21	0.12
t4233	0.08	0.18	0.2	0.15
t4235	0	0	0.24	0.08
t4236	0	0.11	0.14	0.08
t4238	0.12	0.03	0.23	0.13
t4239	0.11	0.09	0.27	0.16
t4240	0.5	0.48	1.23	0.74
t4243	0.04	0.06	0.18	0.09
t4246	0.1	0.02	0.34	0.15
t4248	0.9	0.13	0.19	0.41
t4253	0.1	0.2	0	0.1
t4254	0.08	0.12	0.21	0.14
t4255	0.08	0.09	0.14	0.1
t4256	0	0.08	0.25	0.11
t4257	0	0.21	0	0.07
t4258	0.17	0.05	0.18	0.13
t4259	0	0.07	0.12	0.06
t4260	0.03	0.14	0.27	0.15
t4261	0.06	0.12	0.25	0.14
t4262	0.26	0.15	0	0.14
t4263	0.1	0.22	0.51	0.28
t4264	0.13	0.14	0.78	0.35
t4265	0.04	0.07	0.78	0.3
t4266	0.46	0.6	2.23	1.1
t4267	0.2	0	0.15	0.12
t4268	0.03	0.24	0.05	0.11
t4269	0.06	0.17	0.01	0.08

t4270	0.01	0.13	0.18	0.11
t4271	0	0.12	0.09	0.07
t4272	0	0.06	0	0.02
t4273	0.07	0.19	0.17	0.14
t4274	0.02	0.12	0.17	0.1
t4275	0	0	0.43	0.14
t4276	0.14	0.13	0.14	0.14
t4277	0.33	0.9	1.08	0.77
t4278	0.16	0.33	1.12	0.54
t4279	0	0.12	0.37	0.16
t4280	0	0.05	0.27	0.11
t4281	0	0	0.06	0.02
t4282	0.04	0.26	0	0.1
t4283	0	0	0.05	0.02
t4284	0.22	0	0.22	0.15
t4285	0	0.16	0.07	0.08
t4286	0.03	0	0.17	0.07
t4287	0.06	0.03	0.1	0.06
t4288	0.03	0.07	0.41	0.17
t4289	0	0.12	0.08	0.07
t4290	0.09	0.33	0.11	0.18
t4293	0.17	0.25	0.16	0.19
t4294	0.22	0.94	0.19	0.45
t4294	0.22	0.94	0.19	0.45
t4295	0.12	0.1	0.34	0.19
t4295	0.12	0.1	0.34	0.19
t4296	0	0.14	0.35	0.16
t4296	0	0.14	0.35	0.16
t4297	0.05	0.19	0.34	0.19
t4297	0.05	0.19	0.34	0.19
t4298	0	0	0	0
t4298	0	0	0	0
t4299	0.08	0.08	0	0.05
t4299	0.08	0.08	0	0.05
t4300	0.21	0.17	1.56	0.65
t4300	0.21	0.17	1.56	0.65
t4301	0.04	0.06	0.05	0.05
t4301	0.04	0.06	0.05	0.05
t4302	0.17	0.23	0.67	0.36
t4302	0.17	0.23	0.67	0.36
t4304	0.34	0.61	1.59	0.85
t4304	0.34	0.61	1.59	0.85
t4305	0.15	0.09	0.27	0.17
t4305	0.15	0.09	0.27	0.17
t4306	0	0	0	0
t4306	0	0	0	0
t4307	0.05	0	0.38	0.14
t4307	0.05	0	0.38	0.14
t4309	0	0.12	0.16	0.09
t4309	0	0.12	0.16	0.09
t4310	0	0.06	0.16	0.07
t4310	0	0.06	0.16	0.07
t4312	0	0	0.18	0.06

t4312	0	0	0.18	0.06
t4313	0	0	0.03	0.01
t4313	0	0	0.03	0.01
t4314	0	0.1	0.31	0.14
t4314	0	0.1	0.31	0.14
t4315	0.25	0	0	0.08
t4315	0.25	0	0	0.08
t4316	0	0	0	0
t4316	0	0	0	0
t4317	0	0.21	0.07	0.09
t4317	0	0.21	0.07	0.09
t4318	0.04	0	0	0.01
t4318	0.04	0	0	0.01
t4319	0.02	0.12	0.22	0.12
t4319	0.02	0.12	0.22	0.12
t4320	0.09	0.21	0	0.1
t4320	0.09	0.21	0	0.1
t4321	0.42	0.53	0.22	0.39
t4322	0.05	0.05	0.16	0.09
t4323	0.13	1.02	0.61	0.59
t4323	0.13	1.02	0.61	0.59
t4324	0.81	4.28	4.02	3.04
t4324	0.81	4.28	4.02	3.04
t4325	0.75	8.74	2.38	3.96
t4325	0.75	8.74	2.38	3.96
t4326	1.3	0.26	4.15	1.9
t4326	1.3	0.26	4.15	1.9
t4328	0.03	0.04	0.06	0.04
t4328	0.03	0.04	0.06	0.04
t4330	0	0.22	0.19	0.14
t4330	0	0.22	0.19	0.14
t4331	0	0.53	0.19	0.24
t4331	0	0.53	0.19	0.24
t4332	0.14	0.81	0.01	0.32
t4332	0.14	0.81	0.01	0.32
t4333	0.01	0.03	0.27	0.1
t4333	0.01	0.03	0.27	0.1
t4334	0	0	0	0
t4334	0	0	0	0
t4340	0	0	0	0
t4341	0	0.71	0.18	0.3
t4343	1.46	0.83	0.58	0.96
t4354	0.21	0.36	0.32	0.3
t4355	0.02	0.01	0.02	0.02
t4356	0.03	0.1	0.38	0.17
t4357	0.07	0.27	0.18	0.17
t4358	3.08	4.42	2.45	3.32
t4359	0.02	0.96	0.6	0.53
t4360	1.32	7.46	1.5	3.43
t4361	0.01	0.1	0.14	0.08
t4362	1.55	2.05	3.18	2.26
t4363	0.05	0.34	0.33	0.24
t4365	0.77	0.42	0.21	0.47

t4366	0	0	0	0
t4367	0.03	0.03	0.11	0.06
t4368	0.3	0	0	0.1
t4373	0.04	0.75	0.13	0.31
t4378	1.5	4.24	1.24	2.33
t4380	0.49	0.32	0.44	0.42
t4383	0.87	1.18	1.51	1.19
t4384	0.47	0.36	0.62	0.48
t4385	0.73	0.29	0.35	0.46
t4391	0.29	0.23	0.17	0.23
t4394	9.82	5.68	10.91	8.8
t4395	15.71	8.43	36.66	20.27
t4397	0.06	0.07	0.16	0.1
t4398	0.41	0.43	0.11	0.32
t4399	1.03	0.1	0.2	0.44
t4401	0.17	0.23	0.61	0.34
t4403	0.24	0.31	1.48	0.68
t4406	0.08	0.1	0.2	0.13
t4407	0.31	0.55	0.3	0.39
t4408	0	0.05	0	0.02
t4413	0.04	0.2	0.6	0.28
t4416	0	0.12	0.33	0.15
t4418	0.06	0.69	0.85	0.53
t4420	0.03	0.1	0.36	0.16
t4421	0	0.06	0	0.02
t4422	0	0.03	0.18	0.07
t4423	0.1	0.19	0.59	0.29
t4424	0.04	0.08	0.14	0.09
t4425	0	0.41	0.17	0.19
t4426	0.04	0.28	0.29	0.2
t4427	0.04	0.08	0.24	0.12
t4428	1.31	0.43	0.95	0.9
t4429	0.09	0.21	0.52	0.27
t4430	0.33	0.32	0.28	0.31
t4431	0.59	0.24	0.39	0.41
t4432	0.57	0.22	0.41	0.4
t4433	0.16	0.09	0.68	0.31
t4434	0.03	0.08	0.26	0.12
t4435	0.13	0.04	0.06	0.08
t4436	0	0	0.19	0.06
t4437	0.07	0.1	0.09	0.09
t4438	0.06	0.03	0.42	0.17
t4439	0.07	0.2	0.34	0.2
t4440	0	0.26	0.08	0.11
t4441	0.17	0.47	0.47	0.37
t4446	0.39	0.09	0.57	0.35
t4447	0.18	0.24	0.64	0.35
t4448	0.26	0.48	1.08	0.61
t4450	0.16	0.06	0.19	0.14
t4451	0.25	0.09	0.28	0.21
t4452	0.25	0.21	0.36	0.27
t4453	0.07	0.07	0.06	0.07
t4454	0	0.05	0.11	0.05

t4455	0.41	0.13	0.68	0.41
t4458	0.03	0.3	0.84	0.39
t4459	0.85	1.13	0	0.66
t4461	0	0.13	0.18	0.1
t4463	0.03	0.1	0.16	0.1
t4464	0.13	0.06	0.25	0.15
t4465	0.14	0.53	0.32	0.33
t4466	0.88	0.3	2.75	1.31
t4467	0.06	0.2	0.31	0.19
t4471	0.09	0.67	0.68	0.48
t4472	0.35	0.45	0.39	0.4
t4473	25.13	143.9	138.54	102.52
t4474	0.07	0.09	0.34	0.17
t4475	0	0	0.37	0.12
t4476	0	0.03	0.44	0.16
t4477	0.17	0.06	0.25	0.16
t4478	0.04	0	0.09	0.04
t4479	0.1	0.15	0.03	0.09
t4480	0.06	0.08	0.05	0.06
t4481	0.11	0.02	0.14	0.09
t4482	0.07	0.04	0.29	0.13
t4484	0.08	0.15	0.11	0.11
t4487	1.54	1.58	4.94	2.69
t4492	1.22	3.86	2.82	2.63
t4493	1.24	2.25	2.04	1.84
t4497	0.05	0.16	0.25	0.15
t4498	0.22	0.18	0.89	0.43
t4502	0.21	0.03	0.34	0.19
t4504	0.54	1.1	1.5	1.05
t4506	0.15	0.27	0	0.14
t4507	0.15	0.32	0	0.16
t4508	0.11	0.09	0.34	0.18
t4509	0.26	0.26	0.05	0.19
t4513	0.07	0.13	0.05	0.08
t4514	0.08	0.04	0.37	0.16
t4516	0.04	0.09	0.29	0.14
t4516	0.04	0.09	0.29	0.14
t4521	1.07	6.52	2.07	3.22
t4521	1.07	6.52	2.07	3.22
t4524	0.07	0.13	0.32	0.17
t4524	0.07	0.13	0.32	0.17
t4527	0	0.15	0.13	0.09
t4528	0.07	0.15	0.09	0.1
t4530	0	0.96	0.21	0.39
t4531	2.13	1.88	2.93	2.31
t4532	0.02	0.01	0.19	0.07
t4532	0.02	0.01	0.19	0.07
t4535	0.05	0.11	0	0.05
t4537	0.02	0.2	0.2	0.14
t4537	0.02	0.2	0.2	0.14
t4538	0	0.2	0.7	0.3
t4539	0.17	0	0.03	0.07
t4541	0.06	0.11	0.04	0.07

t4542	0.03	0.17	0.17	0.12
t4545	0.2	0.53	0.66	0.46
t4546	2.49	0.19	1.34	1.34
t4547	0.05	0.05	0.11	0.07
t4548	0.09	0.26	0	0.12
t4549	0.03	2.26	0.72	1
t4550	0.08	0.23	0.38	0.23
t4551	0.16	0.34	0	0.17
t4552	0.04	0.06	0.05	0.05
t4553	0.07	0.15	0.54	0.25
t4554	0.37	0.38	0.06	0.27
t4555	0.97	0.8	2.21	1.33
t4557	0.1	0.28	0.34	0.24
t4558	0	0.27	0	0.09
t4559	0.2	0.21	0.43	0.28
t4560	0.04	0.19	0.46	0.23
t4561	0.63	0.34	0.5	0.49
t4562	0.08	0.14	0.05	0.09
t4563	0.33	0.05	0.31	0.23
t4564	0.17	0.04	0.6	0.27
t4565	2.35	0.58	0.71	1.21
t4566	0.77	0.51	0.69	0.66
t4567	0.2	0.06	0.3	0.19
t4568	0.09	0.07	0.02	0.06
t4569	0.2	0.07	0.48	0.25
t4571	0.46	0	0	0.15
t4572	0.12	2.08	0.09	0.76
t4573	0.16	0.12	0.15	0.14
t4578	0.2	0.25	0.5	0.32
t4579	0.38	0.51	0.26	0.38
t4580	0.05	0.48	0.36	0.3
t4581	1.34	2.89	12.57	5.6
t4582	0.46	0.74	1.09	0.76
t4584	0.25	0.25	0.82	0.44
t4585	0.38	0	1.1	0.49
t4586	0.13	0.67	0.68	0.49
t4588	0.49	0.1	0.51	0.37
t4589	0.16	0.1	0.18	0.15
t4590	0	0.06	0.08	0.05
t4591	3.64	2.59	4.92	3.72
t4592	0.36	0.43	0.55	0.45
t4594	0.45	0.3	1.02	0.59
t4595	1.16	0.18	0.64	0.66
t4599	0	0.13	0.06	0.06
t4602	0.02	0.18	0.37	0.19
t4605	0.13	0	0.29	0.14
t4606	0.11	0.01	0.2	0.11
t4607	0.21	0.23	0.51	0.32
t4608	0.13	0.23	0.17	0.18
t4609	0.09	0.02	0.24	0.12
t4614	0.49	0.31	0.31	0.37
t4616	0.07	0.49	0.3	0.29
t4617	0.07	0.23	0.22	0.17

t4618	0	0.13	0.11	0.08
t4619	0.1	0.26	0.3	0.22
t4620	0.58	0.49	0.63	0.57
t4622	0.27	0.43	0.83	0.51
t4623	1.23	2.01	0.32	1.19
t4623	1.23	2.01	0.32	1.19
t4624	15.94	26.19	37.23	26.45
t4626	1.23	1.08	2.23	1.51
t4627	0.12	0.1	0.18	0.13
t4628	0.04	0.1	0.22	0.12
t4630	0.29	0.12	0.42	0.28
t4630	0.29	0.12	0.42	0.28
t4631	0.03	0.09	0.32	0.15
t4633	0.17	0.19	0.62	0.33
t4634	0.04	0.16	0.05	0.08
t4635	0.22	0.5	0.19	0.3
t4636	0.08	0.09	0.25	0.14
t4638	33.18	124.04	76.03	77.75
t4639	0.4	0.39	0.53	0.44

## 9.6 Non-coding RNA details

Gene	Start	Stop	Arithmetic Mean			Average	
			WT1	WT2	WT3		
	73	1	189	33.72	54.98	132.54	73.74666667
Thr_leader		191	311	5.57	0.4	6.68	4.216666667
rfam_107c.105		5014	5123	0.54	0.05	0.25	0.28
rfam_107c.114		81427	81537	0	0	0	0
rfam_175c.63		95014	95134	0	0	1.05	0.35
rfam_107c.1		101116	101223	0.22	0.78	0	0.333333333
rfam_107c.2		109017	109116	0	0.05	0.66	0.236666667
rfam_107c.3		119385	119481	0.25	0	0.97	0.406666667
TPP		128108	128207	0.04	0.74	1.13	0.636666667
SgrS		129980	130218	4.48	0.28	0.67	1.81
Leu_leader		135184	135332	1.13	0.32	0	0.483333333
rfam_107c.6		139451	139563	0	0	0	0
rfam_341c.3		152481	152561	6.78	12.57	8.45	9.266666667
rfam_107c.11		209243	209353	1.02	0.1	0.51	0.543333333
rfam_107c.19		227845	227966	0	0	0.84	0.28
rfam_107c.20		232065	232178	0.79	0	0	0.263333333
rfam_107c.21		234106	234213	0.74	0.71	0.08	0.51
rfam_107c.22		237505	237612	0.3	0.27	0.22	0.263333333
rfam_107c.25		244215	244323	0	1.19	1.07	0.753333333
rfam_107c.29		249818	249932	1.9	6.56	13.75	7.403333333
rfam_175c.21		250821	250945	3.75	1.49	0.56	1.933333333
t44		251051	251144	80.8	1155.27	15.5	417.19
rfam_175c.22		251911	252034	0	0.19	0	0.063333333
rfam_175c.23		256051	256173	0	0.36	0	0.12
STnc490k		270919	271066	0	0	0	0
rfam_107c.32		277526	277635	0	0.07	0.43	0.166666667
STnc490k		280538	280686	0	0	1.83	0.61
PK-G12rRNA		291750	291857	0	0	0	0

5S_rRNA	292474	292589	0	0	0	0
rncO	315098	315309	1.42	4.27	1.03	2.24
rfam_107c.41	318688	318796	0.07	0	0	0.023333333
GlmY_tke1	332914	333061	62.8	673.15	14.98	250.31
rfam_107c.54	357149	357251	1.96	1.9	1.84	1.9
rfam_175c.42	360064	360185	1.42	0.37	0.41	0.733333333
ryfA	365400	365695	0.18	0.53	0.44	0.383333333
sroE	384343	384434	2.56	4.74	0.4	2.566666667
rfam_103c	417252	417501	18.42	8.41	56.79	27.873333333
rfam_105	447517	447787	40.88	42.1	123.37	68.783333333
rfam_105.1	447531	447708	65.6	73.4	206.99	115.33
STnc250	447726	447819	11.2	2.02	26.91	13.376666667
STnc490k	464568	464716	0.17	0.5	0.21	0.293333333
rfam_107c.103	486861	486963	0.19	0.1	0.64	0.31
rfam_107c.104	491872	491980	0	1.65	0	0.55
rfam_107c.106	511700	511807	0	0.24	0	0.08
rfam_107c	526043	526232	79.98	17.42	134.14	77.18
rfam_107c.107	526122	526232	135.51	29.22	226.98	130.57
STnc490k	528129	528277	0	0	0	0
rfam_175c.59	530324	530408	0.2	0	0.35	0.183333333
rfam_175c.60	531065	531186	1.87	0.58	1.12	1.19
rfam_107c.108	585236	585337	0.34	0.63	0.53	0.5
rfam_107c.109	598213	598328	0.61	0.21	0.17	0.33
rfam_107c.110	605698	605801	0.13	0.06	0	0.063333333
isrH-1	652339	652789	0	0.36	0.13	0.163333333
isrH	652510	652789	0	0.22	0.22	0.146666667
rfam_341c.16	652676	652756	0	0.14	0.17	0.103333333
rfam_107c.111	663264	663372	0.76	3.04	0.83	1.543333333
rfam_341c.17	670425	670507	0.78	0.7	0.36	0.613333333
STnc490k	673377	673525	0	0	0	0
rfam_107c.112	677005	677113	0.5	0.29	0.9	0.563333333
MicF	680757	680850	4.15	0.36	0.42	1.643333333
rfam_175c.61	692867	692990	0	0	0.79	0.263333333
isrG	702748	703029	0	0.09	0.21	0.1
rfam_107c.113	723906	724007	0.24	0.19	0.11	0.18
rfam_111.1	750299	750449	65.25	252.32	26.15	114.573333333
TPP	796380	796476	0.8	0.9	0	0.566666667
CyaR_RyeE	806251	806335	4.88	0.65	0	1.843333333
QUAD	831957	832102	0	0.16	0.21	0.123333333
rfam_115.1	879438	879534	13.66	237.5	5.23	85.463333333
rfam_107c.115	896523	896640	0.03	1.85	0.95	0.943333333
His_leader	897580	897703	0.85	1.12	0.24	0.736666667
rfam_175c.62	926317	926432	0	0	1.34	0.446666667
rfam_117.1	932965	933267	5.1	3.79	2.82	3.903333333
Cobalamin	933281	933456	0	0.39	0	0.13
rfam_118c	975648	975783	103.85	109.08	87.81	100.2466667
rseX	985610	985704	3.54	6.18	0	3.24
DsrA	994134	994217	1.35	1.36	1.47	1.393333333
rfam_121.1	1007471	1007596	10.03	182.98	24.4	72.47
rfam_125.1	1046823	1046862	162.07	885.15	1080.4	709.2066667
rfam_175c.1	1060576	1060698	0	0	0.49	0.163333333
rfam_175c.2	1066422	1066530	0.09	0.15	0	0.08
rfam_175c.3	1086839	1086963	1	0	0.58	0.526666667

SraC_RyeA	1092651	1092807	13.78	7.22	166.99	62.66333333
RyeB	1092692	1092791	0.49	0.31	0.79	0.53
yybP-ykoY	1127473	1127595	0.03	1.37	0	0.466666667
sroD	1144268	1144356	0.49	1.01	4.37	1.956666667
rfam_175c.4	1181921	1182043	1.3	2.09	1.82	1.736666667
STnc490k	1189168	1189316	0.67	0.67	0	0.446666667
STnc150	1189846	1190112	0	0	0.4	0.133333333
isrD	1212905	1212955	0	0.69	0	0.23
rfam_341c.1	1216232	1216306	0	0	0	0
rfam_175c.5	1216336	1216457	0.05	0	0	0.016666667
RyhB	1220046	1220113	0.97	0	0	0.323333333
STnc490k	1220604	1220752	0	0	0	0
rfam_107c.4	1229615	1229720	0.46	0.59	0	0.35
rfam_175c.6	1236390	1236509	2.64	1.74	1.65	2.01
rfam_341c.2	1236462	1236543	0	0.37	0.37	0.246666667
STnc490k	1264979	1265127	0.67	0	0	0.223333333
LR-PK1	1282880	1283221	92.05	698.74	160.82	317.2033333
rfam_107c.5	1298589	1298691	5.32	5	12.67	7.663333333
RprA	1299513	1299620	4.74	5.42	1.39	3.85
rydB	1305097	1305163	0.2	0.31	0	0.17
73	1375243	1375288	119.09	1097.91	81.59	432.8633333
rfam_175c.7	1446388	1446511	0	0	0	0
STnc490k	1450411	1450559	0.11	0	0	0.036666667
STnc570	1482097	1482247	28.36	0.74	1.78	10.29333333
STnc560	1482115	1482334	19.46	0.55	1.22	7.076666667
rfam_146.1	1482145	1482226	52.22	1.35	3.28	18.95
rfam_147c	1482289	1482424	15.79	60.33	3.47	26.53
rfam_151.1	1512962	1513010	8.32	75.75	7.01	30.36
rfam_175c.8	1566390	1566514	0	0	0	0
RydC	1597161	1597226	0.19	1.01	1.36	0.853333333
STnc490k	1613762	1613910	0	0	0	0
MicC	1613895	1614016	3.28	1.43	0.34	1.683333333
rfam_175c.9	1615277	1615400	0.3	0.03	0.14	0.156666667
C0343	1620403	1620477	0.49	0	0.42	0.303333333
STnc490k	1646853	1647001	0	0.67	0	0.223333333
rfam_175c.10	1685013	1685130	0.1	0	0	0.033333333
Trp_leader	1693907	1694002	0.07	0.69	0.16	0.306666667
rfam_175c.11	1722224	1722347	0.74	0.53	0.04	0.436666667
rfam_341c.4	1722300	1722385	0	0.14	0.43	0.19
RtT	1728063	1728204	7.68	7.21	3.58	6.156666667
RtT	1728244	1728384	7.34	1.14	0.39	2.956666667
RtT	1728435	1728566	1.76	0.64	2.1	1.5
STnc490k	1745868	1746016	0	0	0	0
SraB	1796277	1796444	1.47	9.24	0.23	3.646666667
rfam_107c.7	1797013	1797124	0.17	0.45	0.13	0.25
rne5	1798276	1798613	5.03	4.05	1.87	3.65
STnc490k	1802590	1802738	0.67	0	0	0.223333333
rfam_107c.8	1814278	1814376	0	0.15	0.67	0.273333333
rfam_21	1849205	1849367	24.17	0.22	350.62	125.0033333
STnc500	1854281	1854565	0.57	0.34	0.49	0.466666667
rfam_107c.9	1878383	1878511	0.3	0.34	1.22	0.62
isrI	1892814	1892912	0	0.29	0.82	0.37
STnc490k	1895477	1895625	0	0	0	0

STnc490k		1898689	1898837	0	0	0	0
rfam_163.1		1909619	1909754	431.53	4502.98	527.71	1820.74
	96	1914137	1914203	62.75	1743.6	3.48	603.2766667
rfam_166.1		1979573	1979690	284.02	2851.54	265.84	1133.8
rfam_107c.10		1985793	1985884	0.19	0.25	0.15	0.196666667
rfam_167.1		2011998	2012142	13.67	589.52	5.55	202.9133333
	58	2033798	2034068	30.32	133.8	59.94	74.68666667
rfam_172c		2083929	2084072	6.91	1.78	3.56	4.083333333
RybB		2084035	2084113	3.24	0.28	0	1.173333333
STnc490k		2117037	2117185	0	0	0	0
rfam_175c.12		2119800	2119910	0	0.38	0.18	0.186666667
rfam_107c.12		2130211	2130321	0	0	0	0
MOCO_RNA_motif		2145861	2146005	4.19	1.12	2.23	2.513333333
rfam_107c.13		2180122	2180226	0	0	0.27	0.09
rfam_107c.14		2186940	2187049	0	0.36	0	0.12
rfam_175c.13		2193776	2193899	0.05	0.21	0.24	0.166666667
	432	2204563	2204890	81.32	111.08	130.86	107.7533333
rfam_175c.14		2204596	2204720	62.53	36.47	46.28	48.42666667
rfam_341c.5		2204673	2204754	1.95	4.52	5.09	3.853333333
rfam_175c.15		2204829	2204950	0.95	0.41	2.74	1.366666667
rfam_107c.15		2204981	2205089	0	0.44	0	0.146666667
rfam_176c.1		2208270	2208547	92.22	85.31	371.53	183.02
	211	2208319	2208547	79.93	69.9	172.91	107.58
rfam_177.1		2208716	2209067	247.41	967.56	2734.25	1316.406667
rfam_178.1		2239201	2239294	384.53	27.45	255.98	222.6533333
rfam_107c.16		2264196	2264298	2.32	0.72	1.85	1.63
rfam_107c.17		2267003	2267104	0	0	0.12	0.04
rfam_107c.18		2271552	2271659	1.16	1.94	0	1.033333333
sroC		2275477	2275637	14.97	7.6	161.66	61.41
STnc490k		2323856	2324004	0	0	0	0
rfam_175c.16		2325847	2325970	0.87	0.11	0.46	0.48
rfam_341c.6		2325923	2326006	0	0	0	0
rfam_341c.7		2340724	2340803	0	0	0	0
rfam_175c.17		2340756	2340878	0	0	0	0
	375	2357968	2358067	193.41	327.02	130.45	216.96
rfam_175c.18		2422015	2422129	52.42	11.26	7.96	23.88
rfam_341c.8		2422082	2422161	14.62	11.42	18.33	14.79
rfam_107c.23		2423858	2423959	1.4	0.65	0.82	0.956666667
rfam_175c.19		2429940	2430060	0	0	0	0
rfam_341c.9		2430091	2430173	0.75	0	0	0.25
sroB		2431991	2432070	5.65	1.13	1.61	2.796666667
rfam_107c.24		2432673	2432783	2.28	0.79	0.33	1.133333333
rfam_107c.26		2442165	2442277	0.14	0.05	0	0.063333333
DnaX		2446019	2446083	2.52	0.32	0	0.946666667
SRP_bact		2463711	2463810	9.22	0	0	3.073333333
rfam_107c.27		2465974	2466066	0	0	0	0
STnc490k		2473717	2473865	0	0	0.43	0.143333333
rfam_107c.28		2477272	2477392	0.5	0.37	0	0.29
		2480850	2480970	111.06	40.44	2.39	51.29666667
rfam_175c.20		2484971	2485094	3.77	2.93	2.98	3.226666667
	106	2487291	2487546	34.66	520.27	12.04	188.99
rfam_107c.30		2502662	2502764	0.1	0.16	0	0.086666667
rfam_191.1		2511029	2511230	37.67	62.48	42.15	47.43333333

rfam_107c.31	2515289	2515406	0.89	0.12	0.66	0.556666667
STnc490k	2534836	2534984	0.67	0	0	0.223333333
5S_rRNA	2687483	2687598	0	0	0	0
PK-G12rRNA	2688215	2688322	0	0	0	0
isrL	2729595	2729939	0.49	0.33	0.09	0.303333333
tmRNA	2734487	2734848	244.91	194.71	387.59	275.7366667
rfam_42.1	2734714	2734850	9.57	2.03	1.41	4.336666667
isrK	2740919	2740996	1.59	0.61	0	0.733333333
rfam_42	2745336	2745590	1.12	1.07	2.74	1.643333333
rfam_341c.10	2766907	2766988	0	0.35	0	0.116666667
rfam_175c.24	2766941	2767064	0	0.16	0	0.053333333
rfam_107c.33	2781633	2781742	0.22	0	1.84	0.686666667
SraD	2805604	2805679	3.04	3.48	1.04	2.52
132	2809895	2810078	44.49	90.32	24.18	52.996666667
rfam_175c.25	2812777	2812881	1.14	5.71	5.85	4.233333333
rfam_175c.26	2820233	2820356	0	0.9	1.99	0.963333333
rfam_341c.11	2820309	2820390	5.11	1.43	15.5	7.346666667
rfam_107c.34	2826380	2826493	0	0	0	0
rfam_107c.35	2828741	2828849	0	0.31	0	0.103333333
rfam_218c.1	2848000	2848552	14.23	6.83	12.7	11.253333333
rfam_218c	2848000	2848783	23.52	15.7	20.49	19.903333333
rfam_219c	2849589	2849964	28.62	143.68	193.34	121.88
rfam_220c	2850855	2851204	16.8	414.03	18.43	149.7533333
rfam_221.1	2857461	2857722	79.59	80.8	191.84	117.41
InvR	2882780	2882870	5.25	3.89	9.81	6.316666667
rfam_175c.27	2927268	2927396	0.84	0.68	0.98	0.833333333
CsrB	2958127	2958482	596.82	156.13	1316.25	689.7333333
rfam_226	2958340	2958475	421.01	34.83	840.67	432.17
rfam_226.1	2958340	2958473	426.96	35.31	852.28	438.1833333
rfam_107c.36	2965835	2965946	0.05	0	0	0.016666667
rfam_107c.37	2971421	2971519	0.24	0.09	0	0.11
GcvB	2976750	2976955	6.44	17.42	3.37	9.076666667
rfam_107c.38	2985603	2985710	0	0.09	2.15	0.746666667
STnc490k	2999969	3000117	0	0	0.83	0.276666667
STnc490k	3012831	3012979	0	0	0	0
SraE_OmrA_OmrB	3012974	3013060	0.29	0.07	0	0.12
SraE_OmrA_OmrB	3013175	3013259	0.24	0.45	0.35	0.346666667
rfam_175c.28	3036726	3036846	0	0.71	0.23	0.313333333
rfam_341c.12	3036877	3036959	0.39	1.21	0.5	0.7
STnc290	3037052	3037134	0.18	0.31	0	0.163333333
isrO	3046397	3046597	0.54	0.09	0	0.21
rfam_107c.39	3055923	3056032	0.93	0.15	0.24	0.44
6S	3070118	3070301	10.62	23.33	17.69	17.213333333
QUAD	3070933	3071085	0.71	0.63	0.92	0.753333333
STnc490k	3078053	3078201	0	0	0	0
STnc490k	3085644	3085792	0	0	0	0
rfam_107c.40	3088852	3088963	0.06	0.13	0.23	0.14
STnc490k	3107876	3108024	0	0	0	0
rfam_175c.29	3122587	3122710	0	0.21	0.86	0.356666667
rfam_175c.30	3141805	3141929	1.19	1.21	2.53	1.643333333
FMN	3201608	3201806	15.06	2.92	2.48	6.82
QUAD	3205321	3205470	2.62	0.2	0	0.94
rfam_107c.42	3209886	3209993	0.51	0.61	1.98	1.033333333

rfam_107c.43		3213467	3213566	1.78	0.5	0.44	0.906666667
rfam_175c.31		3217366	3217488	0.72	0.62	0.24	0.526666667
yybP-ykoY		3235058	3235197	0.16	0.2	0	0.12
rfam_107c.44		3244895	3244993	0	0.24	0	0.08
RNaseP_bact_a		3257454	3257829	113.59	7.66	21.36	47.536666667
rfam_107c.45		3284802	3284908	0.17	0	0	0.056666667
rfam_107c.46		3286000	3286102	0.6	0.47	1.57	0.88
SraG		3292745	3292912	0	0.14	0.03	0.056666667
S15		3293143	3293258	20.2	49.77	3.44	24.47
rfam_175c.32		3294792	3294915	0.77	0.65	0.68	0.7
rfam_247c		3307380	3307692	25.04	10.1	7.51	14.216666667
rfam_247c.1		3307384	3307692	24.94	10.12	7.53	14.196666667
rfam_107c.47		3316573	3316679	0.19	3.45	0.27	1.303333333
rfam_107c.48		3328810	3328914	0.23	0.23	0.44	0.3
SraH		3330400	3330504	3.43	3.67	1.26	2.786666667
rfam_107c.49		3348024	3348126	2.51	0.01	14.87	5.796666667
	108	3351196	3351300	64.65	52.13	158.43	91.736666667
rfam_252c.1		3366708	3366887	1078.07	689.9	811.55	859.84
	4836	3366708	3366888	1072.11	686.09	807.06	855.086666667
rfam_107c.50		3373366	3373480	0.16	0.37	0	0.176666667
rfam_107c.51		3374897	3375001	2.11	2.59	0.19	1.63
rfam_175c.33		3403128	3403248	0.6	0	0	0.2
5S_rRNA		3403435	3403550	15.7	2.24	0.6	6.18
5S_rRNA		3403816	3403931	0	0	0	0
PK-G12rRNA		3404548	3404655	0	0	0	0
rfam_175c.34		3417036	3417159	0.04	0.19	0.24	0.156666667
rfam_175c.35		3424702	3424826	0.5	0	0.81	0.436666667
rfam_175c.36		3435426	3435548	0.03	0.2	0.29	0.173333333
rfam_107c.52		3447335	3447443	0.3	0.22	0.02	0.18
rfam_257c		3460420	3460582	52.76	28.8	27.52	36.36
GlmZ_SraJ		3464776	3464983	13.1	154.43	4.53	57.353333333
	185	3481711	3481948	46.72	202.41	487.48	245.536666667
rfam_175c.37		3483874	3483979	0.52	0.4	3.75	1.556666667
rfam_107c.53		3490286	3490396	0.31	0.3	1.62	0.743333333
rfam_175c.38		3497276	3497394	1.39	0.54	0.66	0.863333333
STnc490k		3536068	3536216	0	0	0	0
5S_rRNA		3538393	3538508	0	0	0	0
PK-G12rRNA		3539125	3539232	0	0	0	0
	399	3551487	3551589	141.58	431.31	60.12	211.003333333
TPP		3555495	3555720	2.25	0.3	1.05	1.2
rfam_175c.39		3555518	3555641	0.39	0.38	0.42	0.396666667
P26		3571216	3571277	1.52	0	0.03	0.516666667
rfam_265c.1		3572219	3572432	29.28	99.24	9.12	45.88
	107	3572219	3572546	21.23	67.06	6.25	31.513333333
rfam_175c.40		3572434	3572556	0.24	0.49	0.78	0.503333333
		3576263	3576387	66.23	393.03	25.64	161.633333333
5S_rRNA		3580447	3580562	0	0	0	0
PK-G12rRNA		3581180	3581287	0	0	0	0
Cobalamin		3588817	3589010	14.16	4.29	7.32	8.59
OxyS		3593876	3593987	1.29	0.97	0	0.753333333
rfam_107c.55		3595460	3595565	0	0	0	0
rfam_175c.41		3598816	3598924	2.03	1.23	2.7	1.986666667
rfam_107c.56		3603539	3603650	0	0.39	0.32	0.236666667

isrP	3624207	3624354	0	0.45	0.2	0.216666667
rfam_175c.43	3633616	3633739	11.65	4.16	15.52	10.443333333
rfam_107c.57	3638704	3638813	0.32	0	0.67	0.33
rfam_107c.58	3640825	3640929	1.94	6.08	1.54	3.186666667
rfam_107c.59	3657700	3657808	0.12	0	0.35	0.156666667
rfam_107c.60	3671047	3671151	0	0	0	0
rfam_107c.61	3675922	3676033	0	0.31	0.31	0.206666667
rfam_107c.62	3677502	3677609	0	0	0.23	0.076666667
rfam_175c.44	3715402	3715526	0	0.27	0.24	0.17
rfam_107c.63	3718349	3718451	2.02	1.31	0.44	1.256666667
CsrC	3720580	3720834	53.73	79.22	61.78	64.91
Spot_42	3721814	3721933	8.15	4.16	1.96	4.756666667
5S_rRNA	3729441	3729556	0	0	0	0
PK-G12rRNA	3730173	3730280	0	0	0	0
rfam_175c.45	3745139	3745262	0.27	0.36	0.53	0.386666667
rfam_279.1	3753696	3754101	86.66	1394.16	117.02	532.613333333
rfam_107c.64	3776368	3776481	0	0.37	0.78	0.38333333333
rfam_107c.65	3779959	3780064	0.6	0.27	0.21	0.36
rfam_107c.66	3785966	3786069	0.05	0	0.63	0.226666667
istR	3836071	3836200	0	0.26	0	0.086666667
rfam_107c.67	3843022	3843131	0.22	0	0	0.07333333333
rfam_107c.68	3861819	3861926	0	0	0	0
rfam_175c.46	3862890	3863013	0	0	0	0
rfam_107c.69	3890041	3890149	0.07	0	0.11	0.06
istR-2	3911672	3911803	1.36	2.32	1.56	1.746666667
rfam_175c.47	3931761	3931881	1.83	0.67	0	0.83333333333
rfam_341c.13	3931912	3931996	0	0	0	0
rfam_290.1	3940547	3940691	9.55	33.73	45.71	29.663333333
rfam_175c.48	3956280	3956403	0	0	0	0
rfam_175c.49	3994068	3994191	0	0	0	0
rfam_341c.14	3994144	3994225	0	0	0	0
RtT	4007496	4007614	0.11	0.47	0	0.19333333333
rfam_107c.70	4017516	4017619	0.23	0	0	0.076666667
rfam_107c.71	4061631	4061739	0.22	0	0.21	0.14333333333
	4063962	4064100	61.17	75.22	173.59	103.3266667
rfam_107c.72	4078794	4078903	0.08	0.41	0.64	0.376666667
rfam_306.1	4085930	4085969	10.52	36.12	3.23	16.623333333
rfam_175c.50	4096143	4096268	0	0	0	0
rfam_107c.73	4103978	4104080	0.08	0.27	0.83	0.39333333333
rfam_309.1	4114109	4114157	79.05	292.36	4.14	125.183333333
RyhB	4114856	4114920	0	0	0	0
rfam_107c.74	4120397	4120505	0	0.26	0.44	0.23333333333
rfam_107c.75	4131661	4131763	0.51	0.22	0.19	0.306666667
rfam_107c.76	4135516	4135626	1.13	0.46	1.45	1.01333333333
rfam_107c.77	4160755	4160863	0.26	0.3	0.06	0.206666667
rfam_107c.78	4190890	4190995	0	0.21	0	0.07
rfam_107c.79	4199308	4199413	1.23	1.2	1.56	1.33
rfam_175c.51	4204421	4204555	0.29	0.35	7.51	2.716666667
rfam_175c.52	4207837	4207961	1.29	3.63	0.29	1.736666667
Alpha_RBS	4228339	4228450	118.1	818.59	36.1	324.263333333
PK-G12rRNA	4246422	4246529	0	0	0	0
5S_rRNA	4247146	4247261	0	0	0	0
rfam_107c.80	4252316	4252412	3.41	0.72	2.33	2.15333333333

rfam_107c.81		4255159	4255278	0	0.23	0.55	0.26
rfam_107c.82		4271566	4271676	0.26	0.94	0.2	0.466666667
rfam_107c.83		4278999	4279102	0	0.13	0	0.043333333
rfam_107c.84		4289660	4289784	0.03	0.22	0.31	0.186666667
rfam_107c.85		4298889	4299000	0.67	0.59	0	0.42
sraL		4334645	4334785	0.28	0.17	0	0.15
rfam_107c.86		4339061	4339158	0	0	0.01	0.003333333
rfam_175c.53		4343263	4343386	0	0	2.59	0.863333333
rfam_107c.87		4347310	4347414	0	0	0.29	0.096666667
rfam_107c.88		4351334	4351444	0	0	0	0
rfam_107c.89		4354103	4354211	0	0.51	0	0.17
rfam_107c.90		4355036	4355147	0	0	0.27	0.09
rfam_321c		4381431	4381470	2.77	13.95	1.05	5.923333333
STnc440		4388957	4389041	0.76	0	0	0.253333333
	114	4390880	4390991	64.8	1509.64	348.07	640.8366667
rfam_328c.1		4391654	4391696	0	1.15	6.41	2.52
	204	4507489	4507654	75.71	2937.07	0.18	1004.32
rfam_328c		4513001	4513043	41.69	32.25	16.19	30.043333333
isrK		4519423	4519501	0.15	0	0.38	0.176666667
rfam_175c.54		4536161	4536274	5.67	3.52	2.24	3.81
mini-ykkC		4540829	4540873	0	0	0.04	0.013333333
rfam_107c.91		4548601	4548713	0	0.04	0	0.013333333
rfam_175c.55		4556010	4556133	0	0.19	0	0.063333333
	156	4565560	4565703	76.12	168.8	88.59	111.17
rfam_335.1		4565574	4565703	84.11	186.7	96.62	122.4766667
rfam_107c.92		4600744	4600840	0.08	0.82	0.47	0.456666667
STnc490k		4605467	4605615	0	0.67	0	0.223333333
rfam_107c.93		4620031	4620142	0.45	0.06	0.34	0.283333333
Mg_sensor		4638446	4638558	9.1	8.95	4.24	7.43
rfam_107c.94		4647252	4647358	0.7	0.64	0.62	0.653333333
rfam_107c.95		4655873	4655996	2.41	0.19	0.53	1.043333333
rfam_341c		4660949	4661030	53.27	90.44	6.77	50.16
rfam_175c.56		4660983	4661107	2.8	1.81	3.3	2.636666667
rfam_107c.96		4663515	4663619	0.16	0	0	0.053333333
isrK		4674069	4674146	0.15	0.54	0	0.23
isrQ		4709935	4710096	0	0.15	0	0.05
rfam_175c.57		4715805	4715925	0	0	0.67	0.223333333
rfam_107c.97		4727945	4728047	0	0.08	0.3	0.126666667
rfam_107c.98		4739069	4739187	0.08	0.33	1.94	0.783333333
rfam_107c.99		4761696	4761800	0.3	0	1.77	0.69
rfam_175c.58		4764420	4764544	2.46	3.05	7.74	4.416666667
rfam_107c.100		4765346	4765468	0.1	0.02	0.4	0.173333333
rfam_107c.101		4766034	4766139	0	0.2	0	0.066666667
rfam_107c.102		4770391	4770507	0.21	0.3	0.21	0.24

## 9.7 Differential expression pre-Benjamini-Hochberg

### correction

Ratio	P.Value	adj.P.Val	Ty2	Gene	CT18	ProductString
2.914	1.66E-02	4.65E-01	t0011	yaaI	STY0011	hypothetical protein

0.454	3.41E-02	5.08E-01	t0030	NA	STY0034	hypothetical protein
2.383	1.85E-02	4.74E-01	t0065	citG	STY0072	CitG protein
0.433	3.33E-02	5.08E-01	t0067	carA	STY0076	carbamoyl phosphate synthase s
0.434	4.63E-03	3.25E-01	t0068	carB	STY0077	carbamoyl phosphate synthase la
2.568	2.50E-02	4.86E-01	t0070	caiE	STY0079	carnitine operon protein CaiE
2.044	7.59E-03	3.66E-01	t0083	NA	STY0095	probable secreted protein
0.302	8.82E-03	3.66E-01	t0090	folA	STY0102	dihydrofolate reductase
2.728	7.48E-03	3.66E-01	t0121	ilvH	STY0136	acetolactate synthase 3 regulato
0.145	1.48E-03	1.99E-01	t0210	htrA	STY0231	serine endoprotease
2.742	2.64E-02	4.86E-01	t0211	yaeG	STY0232	carbohydrate diacid transcription
2.413	4.58E-02	5.45E-01	t0248	metQ	STY0272	DL-methionine transporter substi
2.618	3.96E-02	5.23E-01	t2598	NA	STY0287	hypothetical protein
0.461	1.44E-02	4.49E-01	t2567	NA	STY0323	hypothetical protein
0.120	5.96E-04	1.14E-01	t2543	NA	STY0352	probable secreted protein
2.616	1.87E-02	4.74E-01	t2541	fadE	STY0354	acyl-CoA dehydrogenase
0.207	2.79E-04	6.71E-02	t2508	NA	STY0387	putative metabolite transport prc
0.473	8.91E-03	3.66E-01	t2490	NA	STY0406	putative DNA-binding transcriptic
0.496	4.07E-02	5.23E-01	t2458	tgt	STY0443	queuine tRNA-ribosyltransferase
2.106	3.03E-02	5.08E-01	t2452	yajD	STY0449	hypothetical protein
3.733	3.11E-02	5.08E-01	t2450	tsx	STY0451	nucleoside-specific channel-formi precursor
0.432	1.89E-02	4.74E-01	t2444	NA	STY0458	thiamine monophosphate kinase
2.426	1.12E-02	4.12E-01	t2437	phnV	STY0465	probable membrane component o aminoethylphosphonate transpor
2.934	4.15E-03	3.25E-01	t2436	phnU	STY0466	probable membrane component o aminoethylphosphonate transpor
3.493	4.75E-03	3.25E-01	t2425	NA	STY0477	hypothetical protein
2.714	6.80E-03	3.66E-01	t2401	NA	STY0501	putative lyase
0.258	1.94E-02	4.78E-01	t2391	rpmE2	STY0512	50S ribosomal protein L31 type E
2.534	3.32E-02	5.08E-01	t2380	ybaM	STY0524	hypothetical protein
4.647	6.85E-04	1.18E-01	t2350	sfbA	STY0558	lipoprotein
3.339	3.78E-02	5.16E-01	t2343	gcl	STY0565	glyoxylate carboligase
2.470	1.00E-02	3.90E-01	t2336	glxK	STY0573	glycerate kinase II
0.445	2.20E-02	4.79E-01	t2303	gtrA	STY0607	bactoprenol-linked glucose transl
5.088	7.42E-04	1.23E-01	t2268	cstA	STY0644	carbon starvation protein A
3.107	3.31E-03	3.18E-01	t2267	NA	STY0645	hypothetical protein
2.636	2.21E-03	2.41E-01	t2252	ybdR	STY0663	hypothetical zinc-dependant alco

0.305	5.52E-03	3.39E-01	t2251	rnk	STY0664	nucleoside diphosphate kinase re
0.127	5.69E-04	1.14E-01	t2235	tatE	STY0682	twin arginine translocase protein
0.486	1.25E-02	4.31E-01	t2230	dacA	STY0688	D-alanyl-D-alanine carboxypeptic
2.317	4.76E-02	5.48E-01	t2208	ybeJ	STY0710	glutamate and aspartate transpo
2.154	4.45E-02	5.45E-01	t2192	nagA	STY0721	N-acetylglucosamine-6-phosphat
4.895	1.11E-03	1.64E-01	t2188	ybfM	STY0725	putative outer membrane proteir
0.324	4.18E-02	5.33E-01	t2131	tolQ	STY0791	colicin uptake protein TolQ
0.344	1.41E-02	4.45E-01	t2107	ybhT	STY0813	hypothetical protein
3.596	2.17E-03	2.41E-01	t2106	modA	STY0814	molybdate transporter periplasm
2.529	2.48E-02	4.86E-01	t2105	modB	STY0815	molybdate ABC transporter perm
0.451	1.02E-02	3.93E-01	t2101	ybhC	STY0819	possible pectinesterase precursor
0.255	1.23E-02	4.31E-01	t2095	ybhB	STY0825	predicted kinase inhibitor
2.400	3.08E-02	5.08E-01	t2077	ybhN	STY0846	hypothetical protein
2.102	2.94E-02	5.08E-01	t2063	ybiI	STY0862	hypothetical protein
2.321	1.48E-02	4.49E-01	t2058	glnH	STY0868	glutamine ABC transporter peripl
0.443	3.57E-03	3.25E-01	t2055	ompX	STY0872	outer membrane protein X
4.887	9.09E-03	3.67E-01	t2036	bssR	STY0893	biofilm formation regulatory prot
2.862	1.91E-02	4.74E-01	t2016	potI	STY0913	putrescine transporter subunit:
0.397	2.29E-02	4.79E-01	t1959	NA	STY0975	membrane component of ABC su hypothetical protein
2.082	3.85E-02	5.18E-01	t1957	serC	STY0977	phosphoserine aminotransferase
0.463	2.38E-02	4.79E-01	t1926	NA	STY1014	putative DNA methylase
0.488	2.38E-02	4.79E-01	t1924	exo	STY1016	exonuclease
0.454	3.63E-02	5.16E-01	t1923	betA	STY1017	bacteriophage recombination pro
0.386	8.32E-03	3.66E-01	t1916	NA	STY1024	putative DNA-binding protein
3.712	2.35E-02	4.79E-01	t1912	NA	STY1028	putative bacteriophage protein
0.053	2.16E-04	5.83E-02	t1800	NA	STY1156	hypothetical protein
10.025	4.72E-02	5.48E-01	t1792	NA	STY1165	putative membrane transporter
10.372	3.12E-02	5.08E-01	t1790	NA	STY1167	hypothetical protein
21.253	2.23E-02	4.79E-01	t1789	NA	STY1168	putative secreted protein
12.265	1.99E-02	4.79E-01	t1788	NA	STY1169	putative sialic acid transporter
2.410	3.38E-02	5.08E-01	t1773	NA	STY1184	hypothetical protein
2.106	1.39E-02	4.45E-01	t1767	msyB	STY1190	hypothetical protein
2.006	4.75E-02	5.48E-01	t1766	yceE	STY1191	drug efflux system protein MdtG
2.104	1.15E-02	4.20E-01	t1753	rimJ	STY1205	ribosomal-protein-S5-alanine N-
2.904	3.56E-02	5.16E-01	t1749	flgN	STY1210	flagella synthesis protein FlgN
2.560	4.78E-03	3.25E-01	t1748	flgM	STY1211	anti-sigma28 factor FlgM

2.081	2.75E-02	4.93E-01	t1740	flgH	STY1219	flagellar basal body L-ring protein
2.499	4.36E-02	5.40E-01	t1739	flgI	STY1220	flagellar basal body P-ring protein
2.261	3.08E-02	5.08E-01	t1738	flgJ	STY1221	peptidoglycan hydrolase
0.450	8.83E-03	3.66E-01	t1729	rpmF	STY1230	50S ribosomal protein L32
2.927	4.42E-03	3.25E-01	t1708	NA	STY1252	hypothetical protein
0.270	1.37E-02	4.45E-01	t1697	potC	STY1263	spermidine/putrescine ABC transport protein
0.231	4.50E-03	3.25E-01	t1643	NA	STY1320	hypothetical protein
0.053	1.14E-03	1.64E-01	t1642	NA	STY1321	hypothetical protein
0.095	1.98E-05	8.57E-03	t1641	NA	STY1322	hypothetical protein
0.249	1.68E-02	4.65E-01	t1640	NA	STY1323	hypothetical protein
0.378	7.40E-03	3.66E-01	t1620	pyrF	STY1344	orotidine 5-prime-phosphate decarboxylase
2.900	7.62E-03	3.66E-01	t1581	NA	STY1386	putative transcriptional regulator
2.225	1.10E-02	4.12E-01	t1568	NA	STY1400	conserved hypothetical DNA-binding protein
0.467	2.16E-02	4.79E-01	t1566	NA	STY1402	hypothetical protein
2.034	2.83E-02	4.99E-01	t1562	NA	STY1406	hypothetical protein
2.506	1.67E-03	2.12E-01	t1561	NA	STY1408	putative chemo-receptor protein
0.360	1.17E-02	4.25E-01	t1553	NA	STY1419	probable pyruvate-flavodoxin oxidoreductase
0.463	3.91E-02	5.22E-01	t1535	NA	STY1439	hypothetical protein
0.382	4.89E-03	3.25E-01	t1489	narY	STY1487	respiratory nitrate reductase 2 beta subunit
0.419	7.34E-03	3.66E-01	t1488	narZ	STY1488	respiratory nitrate reductase 2 alpha subunit
0.259	5.57E-03	3.39E-01	t1482	adhP	STY1493	alcohol dehydrogenase
2.902	3.08E-02	5.08E-01	t1474	NA	STY1502	putative secreted protein
2.817	3.15E-02	5.08E-01	t1470	NA	STY1507	putative aminotransferase
0.035	1.33E-05	6.39E-03	t1459	NA	STY1522	putative secreted hydrolase
0.031	5.20E-06	4.24E-03	t1458	hyaA	STY1523	uptake hydrogenase small subunit
0.199	5.60E-04	1.14E-01	t1451	NA	STY1531	putative ATP/GTP-binding protein
2.313	2.95E-02	5.08E-01	t1430	NA	STY1552	hypothetical protein
2.574	4.88E-03	3.25E-01	t1414	NA	STY1571	putative ABC transporter periplasmic domain
2.623	3.77E-02	5.16E-01	t1413	NA	STY1572	putative ABC transporter membrane domain
3.611	1.65E-02	4.65E-01	t1402	NA	STY1585	multidrug efflux system protein M
0.302	8.00E-03	3.66E-01	t1397	NA	STY1591	putative bacteriophage transcript
2.819	1.11E-02	4.12E-01	t1366	NA	STY1622	conserved bacteriophage hypothetical protein
0.239	3.66E-04	8.32E-02	t1364	NA	STY1624	hypothetical protein
0.336	9.10E-03	3.67E-01	t1360	NA	STY1628	hypothetical protein
0.127	1.37E-03	1.91E-01	t1341	NA	STY1649	outer membrane protein

0.246	1.50E-02	4.49E-01	t1329	NA	STY1661	oriC-binding nucleoid-associated
0.251	1.62E-02	4.62E-01	t1298	purR	STY1692	DNA-binding transcriptional repressor
2.072	8.50E-03	3.66E-01	t1281	ssaM	STY1707	putative pathogenicity island protein
0.270	4.86E-02	5.50E-01	t1276	ssaI	STY1712	putative pathogenicity island protein
2.387	2.35E-02	4.79E-01	t1267	sscA	STY1721	putative type III secretion system
0.100	1.60E-03	2.09E-01	t1260	ssrA	STY1728	putative two-component sensor kinase
0.319	3.94E-02	5.23E-01	t1259	ssrB	STY1729	putative two-component response regulator
3.404	3.04E-02	5.08E-01	t1256	ydhZ	STY1732	hypothetical protein
2.515	2.11E-02	4.79E-01	t1255	ttrR	STY1733	putative two-component response regulator
2.954	3.85E-02	5.18E-01	t1254	ttrS	STY1735	hypothetical protein
0.222	1.10E-02	4.12E-01	t1245	lppA	STY1745	major outer membrane lipoprotein
2.588	4.49E-02	5.45E-01	t1237	sufA	STY1754	iron-sulfur cluster assembly scaffold
0.256	3.34E-02	5.08E-01	t1236	NA	STY1755	putative transporter
2.267	4.66E-02	5.48E-01	t1195	celF	STY1797	phospho-beta-glucosidase B
2.954	2.48E-02	4.86E-01	t1190	osmE	STY1802	DNA-binding transcriptional activator
3.228	1.90E-02	4.74E-01	t1149	NA	STY1850	hypothetical protein
4.817	2.68E-02	4.86E-01	t1141	NA	STY1858	hypothetical protein
0.072	3.84E-02	5.18E-01	t1132	NA	STY1867	putative lipoprotein
0.312	4.42E-02	5.43E-01	t1116	pagD	STY1880A	putative outer membrane virulence factor
0.299	4.39E-02	5.40E-01	t1107	NA	STY1891	putative pertussis-like toxin subunit
3.098	8.41E-03	3.66E-01	t1094	NA	STY1908	predicted inner membrane protein
2.605	2.61E-02	4.86E-01	t1080	NA	STY1925	hypothetical protein
2.114	4.52E-03	3.25E-01	t1076	NA	STY1929	potassium/proton antiporter
2.026	4.34E-02	5.40E-01	t1073	NA	STY1933	hypothetical protein
2.267	1.11E-02	4.12E-01	t1050	NA	STY1957	hypothetical protein
0.362	2.33E-02	4.79E-01	t1045	NA	STY1962	hypothetical protein
0.430	2.92E-02	5.08E-01	t1043	rrmA	STY1964	23S rRNA methyltransferase A
0.486	2.42E-02	4.81E-01	t1042	ftsI	STY1965	penicillin-binding protein
3.573	2.65E-02	4.86E-01	t1037	NA	STY1971	hypothetical protein
2.325	2.36E-02	4.79E-01	t1034	htpX	STY1975	heat shock protein HtpX
0.079	6.78E-03	3.66E-01	t1022	NA	STY1988	hypothetical protein
2.052	1.41E-02	4.45E-01	t1012	yjcS	STY2004	putative hydrolase
2.178	4.38E-02	5.40E-01	t1011	NA	STY2005	hypothetical protein
0.249	1.77E-02	4.74E-01	t1867	NA	STY2013	putative bacteriophage tail protein
0.308	5.46E-03	3.39E-01	t1870	NA	STY2016	putative bacteriophage protein
0.385	1.52E-02	4.49E-01	t1884	NA	STY2030	putative bacteriophage protein
0.343	2.26E-02	4.79E-01	t1892	NA	STY2038	hypothetical protein

0.492	3.41E-02	5.08E-01	t0986	znuA	STY2099	high-affinity zinc transporter peri
0.144	9.56E-03	3.82E-01	t0975	yecD	STY2110	hypothetical protein
3.977	3.11E-03	3.12E-01	t0965	flhE	STY2121	flagellar protein FlhE precursor
2.203	3.67E-02	5.16E-01	t0961	cheY	STY2125	chemotaxis regulator transmittin motor component
2.089	2.05E-02	4.79E-01	t0960	cheB	STY2126	chemotaxis-specific methylesterase
2.271	1.34E-02	4.42E-01	t0955	motB	STY2131	flagellar motor protein MotB
3.279	2.77E-03	2.85E-01	t0922	fliY	STY2162	cystine transporter subunit
2.433	1.30E-02	4.40E-01	t0913	yedD	STY2172	hypothetical protein
3.472	3.41E-02	5.08E-01	t0909	fliE	STY2176	flagellar hook-basal body protein
2.034	2.28E-02	4.79E-01	t0896	fliR	STY2189	flagellar biosynthesis protein FliR
5.394	1.53E-02	4.49E-01	t0895	rcaA	STY2190	colanic acid capsular biosynthesi
0.490	3.95E-02	5.23E-01	t0890	NA	STY2195	hypothetical protein
0.303	7.88E-03	3.66E-01	t0883	ompS	STY2203	outer membrane protein S1
2.043	2.14E-02	4.79E-01	t0837	pduF	STY2242	propanediol diffusion facilitator
2.732	1.74E-02	4.70E-01	t0828	pduK	STY2251	putative propanediol utilization p
2.070	3.60E-02	5.16E-01	t0811	phsC	STY2269	thiosulfate reductase cytochrome
2.223	2.82E-02	4.99E-01	t0810	phsB	STY2270	thiosulfate reductase electron tra
0.306	2.29E-02	4.79E-01	t0803	hisL	STY2279A	his operon leader peptide
2.282	1.40E-02	4.45E-01	t0763	gmd	STY2321	GDP-mannose 4,6-dehydratase
2.105	2.69E-02	4.86E-01	t0721	NA	STY2364	hypothetical protein
0.319	1.30E-02	4.40E-01	t0707	stcD	STY2378	hypothetical protein
0.246	4.35E-02	5.40E-01	t0704	stcA	STY2381	putative fimbrial subunit protein
3.165	4.57E-03	3.25E-01	t0692	yehY	STY2394	putative permease transmembra
0.357	2.31E-02	4.79E-01	t0682	NA	STY2403	hypothetical protein
3.944	3.09E-02	5.08E-01	t0672	cdd	STY2413	cytidine deaminase
2.856	2.19E-02	4.79E-01	t0667	mgIC	STY2421	beta-methylgalactoside transport component
0.298	1.91E-02	4.74E-01	t0659	sdaC	STY2430	putative L-serine dehydratase
2.355	3.59E-02	5.16E-01	t0656	cirA	STY2434	ferric iron-catecholate outer men
0.077	6.34E-03	3.65E-01	t0646	NA	STY2445	hypothetical protein
0.278	7.42E-03	3.66E-01	t0620	NA	STY2470	homolog of virulence protein msc
0.371	3.63E-02	5.16E-01	t0618	narP	STY2472	DNA-binding response regulator regulatory system with NarQ or P

0.036	9.97E-04	1.59E-01	t0597	ompC	STY2493	outer membrane porin protein C
0.429	2.90E-02	5.07E-01	t0575	NA	STY2518	hypothetical protein
0.185	2.80E-04	6.71E-02	t0569	NA	STY2524	hypothetical protein
3.172	9.89E-03	3.88E-01	t0523	NA	STY2571	putative transketolase N-termina
2.562	2.25E-02	4.79E-01	t0450	NA	STY2648	hypothetical protein
0.437	4.56E-02	5.45E-01	t0420	NA	STY2675	glutamine amidotransferase
0.469	3.68E-02	5.16E-01	t0408	amiA	STY2687	N-acetylmuramoyl-l-alanine amic
0.472	3.03E-02	5.08E-01	t0407	hemF	STY2688	coproporphyrinogen III oxidase
2.844	2.03E-03	2.41E-01	t0391	eutQ	STY2704	putative ethanolamine utilization
2.378	1.25E-02	4.31E-01	t0375	NA	STY2722	hypothetical protein
3.041	6.74E-03	3.66E-01	t0364	NA	STY2734	hypothetical protein
0.284	2.09E-02	4.79E-01	t0346	guaB	STY2752	inositol-5-monophosphate dehyd
0.311	3.33E-02	5.08E-01	t0310	suhB	STY2792	inositol monophosphatase
0.470	4.93E-02	5.50E-01	t0274	lepA	STY2829	GTP-binding protein LepA
3.023	4.36E-02	5.40E-01	t2734	srIE	STY2954	glucitol/sorbitol-specific IIBC con system
2.215	4.86E-02	5.50E-01	t2748	hycH	STY2968	formate hydrogenlyase maturatic
2.650	4.73E-02	5.48E-01	t2749	hycG	STY2969	formate hydrogenlyase subunit 7
0.169	1.72E-02	4.66E-01	t2809	NA	STY3032	hypothetical protein
0.447	4.18E-02	5.33E-01	t2833	ygbE	STY3057	hypothetical protein
2.437	2.73E-02	4.91E-01	t2836	cysD	STY3060	sulfate adenylyltransferase subur
2.507	2.64E-02	4.86E-01	t2851	NA	STY3078	hypothetical protein
2.829	6.30E-03	3.65E-01	t2929	yqeF	STY3164	acetyl-CoA acetyltransferase
0.220	3.46E-02	5.14E-01	t2940	stdA	STY3177	probable fimbrial protein
2.605	4.91E-02	5.50E-01	t2994	NA	STY3233	possible ABC-transport protein, A component
0.492	6.35E-03	3.65E-01	t3014	NA	STY3255	hypothetical protein
2.425	4.81E-03	3.25E-01	t3026	nupG	STY3268	nucleoside permease
0.271	2.32E-02	4.79E-01	t3033	NA	STY3278	hypothetical protein
3.223	2.54E-02	4.86E-01	t3074	NA	STY3326	hypothetical protein
2.110	4.11E-02	5.26E-01	t3142	ygjQ	STY3402	hypothetical protein
2.232	7.90E-03	3.66E-01	t3147	NA	STY3407	hypothetical protein
2.030	8.83E-03	3.66E-01	t3151	NA	STY3411	hypothetical protein
0.177	5.05E-03	3.25E-01	t3194	NA	STY3457	putative protease
0.316	2.50E-02	4.86E-01	t3201	rpsO	STY3464	30S ribosomal protein S15
0.433	3.20E-02	5.08E-01	t3205	nusA	STY3468	transcription elongation factor Nu
0.320	3.90E-03	3.25E-01	t3206	NA	STY3469	hypothetical protein
0.490	4.57E-02	5.45E-01	t3212	folP	STY3473	dihydropteroate synthase
0.443	3.31E-02	5.08E-01	t3219	NA	STY3481	hypothetical protein
0.360	2.15E-03	2.41E-01	t3221	rpIU	STY3483	50S ribosomal protein L21
0.344	6.92E-03	3.66E-01	t3261	rpIM	STY3525	50S ribosomal protein L13
0.189	1.62E-02	4.62E-01	t3276	NA	STY3542	hypothetical protein

2.087	3.73E-02	5.16E-01	t3323	tatB	STY3585	sec-independent translocase
3.794	7.47E-03	3.66E-01	t3329	udp	STY3591	uridine phosphorylase
2.059	1.87E-02	4.74E-01	t3342	NA	STY3604	chloramphenicol-sensitive protein
0.152	3.22E-02	5.08E-01	t3356	NA	STY3618	hypothetical protein
0.436	4.99E-02	5.50E-01	t3404	cII	STY3662	regulatory protein cII
0.271	3.38E-02	5.08E-01	t3408	NA	STY3666	hypothetical protein
0.396	2.03E-02	4.79E-01	t3455	purH	STY3709	bifunctional phosphoribosylaminoimidazole formyltransferase/IMP cyclohydrolase
0.433	6.53E-03	3.66E-01	t3478	rplK	STY3736	50S ribosomal protein L11
0.348	1.19E-02	4.26E-01	t3481	tuf	STY3739	elongation factor Tu
2.093	3.62E-02	5.16E-01	t3498	yijC	STY3747	DNA-binding transcriptional repressor
3.458	8.76E-03	3.66E-01	t3538	NA	STY3790	ribulose-phosphate 3-epimerase
3.464	4.79E-02	5.50E-01	t3543	NA	STY3795	putative ABC transporter permease
7.367	1.86E-02	4.74E-01	t3544	NA	STY3796	putative ABC transporter ATP-binding protein
2.708	1.61E-02	4.62E-01	t3559	cpxP	STY3811	periplasmic repressor CpxP
2.573	7.31E-03	3.66E-01	t3585	fdoI	STY3842	formate dehydrogenase-O subunit
3.025	3.72E-02	5.16E-01	t3619	NA	STY3879	hypothetical protein
0.200	4.49E-03	3.25E-01	t3638	rbsD	STY3897	high affinity ribose transport protein
0.367	2.69E-02	4.86E-01	t3658	glmS	STY3917	D-fructose-6-phosphate amidotransferase
0.393	2.05E-02	4.79E-01	t3660	stgB	STY3919	fimbrial chaperone protein
0.306	2.24E-03	2.41E-01	t3664	aroE	STY3924	shikimate 5-dehydrogenase
0.361	2.16E-02	4.79E-01	t3678	yidC	STY3938	putative inner membrane protein component YidC
0.361	2.77E-02	4.93E-01	t3680	rpmH	STY3939A	50S ribosomal protein L34
2.273	8.27E-03	3.66E-01	t3691	NA	STY3950	hypothetical protein
2.100	2.96E-02	5.08E-01	t3715	dsdA	STY3977	D-serine dehydratase
2.195	3.21E-02	5.08E-01	t3728	uhpA	STY3992	DNA-binding response regulator regulatory system with UhpB
2.054	3.83E-02	5.18E-01	t3750	NA	STY4017	putative transferase
0.081	1.25E-04	3.60E-02	t3757	slsA	STY4025	hypothetical protein
0.485	1.97E-02	4.79E-01	t3784	rph	STY4060	ribonuclease PH
0.462	4.07E-02	5.23E-01	t3806	waaL	STY4082	O-antigen ligase
0.283	3.88E-02	5.19E-01	t3818	secB	STY4094	preprotein translocase subunit SecY
2.715	1.63E-02	4.62E-01	t3841	NA	STY4118	putative transcriptional regulator
2.589	2.17E-02	4.79E-01	t3842	sgbE	STY4119	L-ribulose-5-phosphate 4-epimerase
2.252	7.75E-03	3.66E-01	t3885	dppA	STY4168	periplasmic dipeptide transport protein
0.276	8.50E-03	3.66E-01	t3912	NA	STY4198	phage-like lysozyme

2.583	2.75E-03	2.85E-01	t3968	ugpQ	STY4258	cytoplasmic glycerophosphodiesterase
0.286	4.33E-02	5.40E-01	t3973	NA	STY4263	hypothetical protein
0.114	6.34E-04	1.14E-01	t4004	ompR	STY4294	osmolarity response regulator
0.056	2.47E-05	8.87E-03	t4005	envZ	STY4295	osmolarity sensor protein
5.758	5.66E-03	3.39E-01	t4017	yrfA	STY4307	hypothetical protein
0.346	1.34E-02	4.42E-01	t4033	ppiA	STY4324	peptidyl-prolyl cis-trans isomerase
0.151	4.56E-03	3.25E-01	t4057	rpsL	STY4350	30S ribosomal protein S12
0.437	1.23E-02	4.31E-01	t4059	fusA	STY4352	elongation factor G
0.280	3.78E-03	3.25E-01	t4068	rplB	STY4361	50S ribosomal protein L2
0.333	2.40E-02	4.79E-01	t4075	rplN	STY4368	50S ribosomal protein L14
0.392	4.83E-03	3.25E-01	t4076	rplX	STY4369	50S ribosomal protein L24
0.441	1.88E-02	4.74E-01	t4077	rplE	STY4370	50S ribosomal protein L5
0.339	4.58E-02	5.45E-01	t4080	rplF	STY4373	50S ribosomal protein L6
0.423	1.48E-02	4.49E-01	t4081	rplR	STY4374	50S ribosomal protein L18
0.391	1.52E-02	4.49E-01	t4085	secY	STY4378	preprotein translocase subunit SecY
0.480	3.37E-02	5.08E-01	t4088	rpsK	STY4381	30S ribosomal protein S11
2.476	4.24E-03	3.25E-01	t4100	smg	STY4393	hypothetical protein
3.748	6.23E-04	1.14E-01	t4111	aceB	STY4401	malate synthase
2.627	3.29E-02	5.08E-01	t4112	aceA	STY4402	isocitrate lyase
3.290	1.03E-03	1.59E-01	t4113	aceK	STY4403	bifunctional isocitrate dehydrogenase/kinase/phosphatase protein
2.495	4.95E-02	5.50E-01	t4114	iclR	STY4404	acetate operon transcriptional regulator
2.110	4.75E-02	5.48E-01	t4126	lysC	STY4416	aspartate kinase III
0.473	1.19E-02	4.26E-01	t4128	NA	STY4418	hypothetical protein
2.953	6.42E-03	3.65E-01	t4180	NA	STY4472	hypothetical protein
0.446	1.33E-02	4.42E-01	t4200	NA	STY4492	predicted metal dependent hydrolyase
2.413	3.14E-02	5.08E-01	t4201	NA	STY4493	arginine:agmatin antiporter
0.435	3.33E-02	5.08E-01	t4267	NA	STY4571	putative lipoprotein
2.199	1.29E-02	4.40E-01	t4271	NA	STY4574	hypothetical protein
2.136	3.79E-02	5.16E-01	t4275	NA	STY4578	hypothetical protein
2.286	4.99E-03	3.25E-01	t4289	NA	STY4595	hypothetical protein
0.230	4.67E-03	3.25E-01	t4298	NA	STY4604	hypothetical protein
2.386	2.29E-02	4.79E-01	t4308	NA	STY4614	phage baseplate assembly protein
4.234	4.93E-02	5.50E-01	t4326	NA	STY4632	hypothetical protein
0.020	4.05E-06	4.24E-03	t4344	vexE	STY4651	Vi polysaccharide export protein
0.022	2.23E-05	8.77E-03	t4345	vexD	STY4652	Vi polysaccharide export inner-membrane protein
0.008	6.11E-05	2.03E-02	t4346	vexC	STY4653	Vi polysaccharide export ATP-binding protein
0.008	8.07E-06	4.66E-03	t4347	vexB	STY4654	Vi polysaccharide export inner-membrane protein
0.019	5.38E-06	4.24E-03	t4348	vexA	STY4655	Vi polysaccharide export protein

0.019	5.89E-06	4.24E-03	t4349	tviE	STY4656	Vi polysaccharide biosynthesis pr
0.007	2.12E-06	4.24E-03	t4350	tviD	STY4659	Vi polysaccharide biosynthesis pr
0.003	5.10E-06	4.24E-03	t4351	tviC	STY4660	Vi polysaccharide biosynthesis pr
0.004	8.63E-06	4.66E-03	t4352	tviB	STY4661	Vi polysaccharide biosynthesis pr glucose/GDP-mannose dehydrog
0.004	1.02E-04	3.15E-02	t4353	tviA	STY4662	Vi polysaccharide biosynthesis pr
0.203	2.32E-02	4.79E-01	t4354	NA	STY4663	hypothetical protein
0.439	8.40E-03	3.66E-01	t4357	NA	STY4666	probable phage integrase
0.214	2.11E-03	2.41E-01	t4397	yjeM	STY4705	putative amino acid permease
0.260	4.97E-02	5.50E-01	t4398	yjeN	STY4706	hypothetical protein
0.277	5.60E-03	3.39E-01	t4445	rplI	STY4750	50S ribosomal protein L9
2.047	3.38E-02	5.08E-01	t4466	NA	STY4771	putative sugar transporter
3.688	3.23E-03	3.17E-01	t4475	NA	STY4780	hypothetical protein
0.492	1.69E-02	4.65E-01	t4479	NA	STY4784	dihydroorotase
0.482	2.62E-02	4.86E-01	t4526	cI	STY4829	phage immunity repressor protei ferric iron reductase involved in f transport
2.200	4.75E-02	5.48E-01	t4593	NA	STY4903	transport
0.353	1.67E-02	4.65E-01	t4604	osmY	STY4911	periplasmic protein
2.635	4.06E-02	5.23E-01	t4611	deoA	STY4919	thymidine phosphorylase
0.479	2.65E-02	4.86E-01	t4624	gpmB	STY4932	phosphoglycerate mutase
0.260	4.65E-03	3.25E-01	t2653	NA		hypothetical protein

## 9.8 Microarray Differences

Gene ID	Product	OD(600)=0.6		Experiment OD(600)=1.1		SPI-2 Inducing	
		Ratio	p-value	Ratio	p-value	Ratio	p-value
STY0012	dnaK	2.1	1.3E-11	1.0	8.9E-01	2.0	7.4E-05
STY0039	-	0.3	1.3E-04	1.0	6.9E-01		
STY0078	caiF	0.4	2.7E-04	0.7	1.0E-02		
STY0181	acnB	2.7	4.1E-09	1.3	8.2E-04	1.4	9.8E-05
STY0232	yaeG	0.3	2.6E-04	0.9	6.4E-01		
STY0307	-	2.4	4.8E-03	1.4	2.4E-01		
STY0399	prpR	3.1	8.3E-03	1.1	7.9E-01		
STY0400	prpB	8.6	6.6E-04	1.5	2.9E-02		
STY0401	prpC	7.6	1.1E-07	6.9	2.8E-01		
STY0402	prpD	10.0	1.0E-05	1.4	1.8E-01		
STY0403	prpE	4.7	2.3E-07	1.4	1.5E-04		
STY0481	cyoE	10.3	4.2E-08	2.8	1.3E-04	2.2	1.4E-04
STY0482	cyoD	8.0	1.3E-10	2.9	3.6E-12	2.0	1.9E-04
STY0483	cyoC	5.6	5.8E-08	1.6	2.2E-05	2.0	1.9E-05
STY0484	cyoB	7.9	1.1E-12	2.4	6.0E-08	2.2	2.0E-09
STY0485	cyoA	12.8	4.1E-16	2.6	5.5E-08	2.0	1.6E-05
STY0562	-	2.6	1.1E-04	1.0	7.1E-01		
STY0563	allA	4.0	5.9E-07	1.5	1.6E-06	1.0	8.8E-01
STY0564	allR	2.0	2.6E-07	1.1	2.3E-01	1.1	3.2E-01
STY0566	hyi	72.3	1.5E-03	1.6	1.4E-05		
STY0567	garR	74.3	6.1E-03	1.0	9.4E-01		
STY0568	-	10.5	3.4E-05	1.9	no replicates		
STY0569	ybbW	21.3	3.3E-02				

STY0571	allB	26.5	6.3E-03	1.0	8.9E-01		
STY0644	cstA	2.7	1.2E-08	1.6	1.5E-05	1.3	4.9E-02
STY0670	citF	2.2	9.3E-09	1.3	6.3E-03	1.0	9.9E-01
STY0707	gltL	4.7	8.1E-03				
STY0708	gltK	124.9	9.3E-03	1.9	no replicates		
STY0710	ybfJ	10.7	9.3E-07	1.5	9.7E-05	1.3	6.8E-02
STY0725	ybfM	3.1	2.0E-09	2.0	1.9E-08		
STY0773	gltA	3.2	7.7E-11	1.3	5.0E-03	1.9	8.3E-05
STY0775	sdhC	4.2	1.9E-14	1.5	1.0E-04	1.7	1.4E-02
STY0776	sdhD	4.1	1.4E-12	1.5	1.3E-05	1.7	4.0E-03
STY0777	sdhA	3.1	8.1E-08	1.7	6.8E-04	1.7	6.5E-03
STY0779	sucA	2.2	1.2E-10	1.5	1.4E-06	1.4	2.9E-02
STY0780	sucB	2.2	2.4E-09	1.5	3.5E-05	1.5	1.1E-02
STY0781	sucC	2.2	3.9E-08	1.6	2.3E-06	1.8	1.9E-04
STY0787	cydB	0.5	8.7E-04	1.0	8.8E-01	1.5	1.9E-03
STY0814	modA	2.1	2.1E-06	2.0	4.3E-06	1.3	6.5E-03
STY0815	modB	2.1	2.0E-08	1.5	6.8E-06		
STY0823	hutU	3.0	1.7E-05	1.1	3.5E-01		
STY0824	hutH	2.5	2.9E-10	1.2	1.0E-01		
STY0866	glnQ	3.4	1.6E-09	1.6	4.2E-05		
STY0868	glnH	4.3	2.5E-13	1.7	2.3E-05		
STY0880	-	3.7	5.3E-08	1.0	no replicates		
STY0881	-	2.0	3.9E-04	1.1	4.8E-01	1.7	4.2E-03
STY0962	dmsA	0.4	3.1E-04	0.8	4.7E-02		
STY1002	ompF	13.2	3.5E-19	6.3	8.2E-11	1.3	2.5E-01
STY1162	phoH	2.2	3.8E-08	1.1	4.5E-02	1.6	2.8E-03
STY1165	-	2.6	5.8E-03	0.9	no replicates		
STY1166	-	2.5	5.7E-03	1.2	1.8E-01	1.0	9.8E-01
STY1167	-	203.1	1.4E-03	1.6	4.6E-01		
STY1168	-	7.4	4.9E-07	1.2	1.4E-01		
STY1169	-	3.9	1.3E-03	1.1	2.4E-01		
STY1170	-	5.3	8.3E-06	1.1	2.2E-01	1.6	1.2E-02
STY1210	flgN	2.2	5.7E-07	2.3	1.4E-07	1.6	1.4E-02
STY1211	flgM	2.2	1.8E-07	2.5	9.9E-08	2.0	4.0E-05
STY1213	flgB	1.2	4.8E-02	1.7	3.0E-06	2.6	1.6E-04
STY1218	flgG	1.1	1.4E-01	2.0	1.0E-08	3.0	6.3E-03
STY1222	flgK	2.1	1.1E-07	2.6	4.2E-11	1.8	5.3E-03
STY1252	-	2.7	6.1E-09	2.9	4.7E-10	1.1	2.6E-01
STY1287	narK	4.2	5.3E-10	0.9	6.3E-01		
STY1288	narG	2.7	5.9E-07	0.9	5.8E-01	0.8	1.7E-01
STY1289	narH	7.1	4.6E-08	1.0	8.4E-01	1.2	2.6E-01
STY1290	narJ	10.2	1.2E-09	1.0	9.0E-01		
STY1291	narI	7.0	4.2E-08	0.9	4.6E-01	1.6	4.8E-02
STY1304	oppA	4.4	1.1E-09	1.7	2.1E-06	1.3	3.0E-01
STY1305	oppB	3.3	7.4E-09	1.5	3.0E-04	1.3	1.7E-01
STY1306	oppC	2.1	2.1E-06	1.5	6.1E-05		
STY1319	-	0.5	1.0E-03	1.1	3.9E-01	0.7	1.4E-01
STY1371	pspA	1.0	7.5E-01	1.2	1.5E-02	7.0	8.8E-16
STY1372	pspB	0.8	2.3E-01	1.0	7.2E-01	7.3	2.5E-14
STY1373	pspC	1.0	9.5E-01	1.2	5.8E-02	5.2	1.0E-14
STY1374	pspD	0.6	7.2E-03	0.9	1.5E-01	4.3	3.6E-12
STY1375	pspE	0.7	2.8E-02	0.9	2.0E-01	4.2	4.0E-08
STY1493	adhP	0.5	1.3E-03	0.5	2.0E-04	0.7	3.1E-03
STY1501	-	4.2	1.8E-09	1.9	2.7E-06	1.7	6.7E-03
STY1522	-	0.1	5.8E-05	0.1	3.7E-04	0.1	8.5E-10
STY1523	hyaA2	0.2	4.3E-04	0.2	4.2E-04	0.1	7.0E-12
STY1525	hyaB2	0.3	3.2E-02	0.3	2.4E-01		
STY1566	dmsA2	0.2	1.1E-04	0.8	3.6E-02		
STY1568	dmsC	0.5	1.3E-03	1.0	9.5E-01	0.9	2.9E-01
STY1569	-	0.4	2.9E-03	0.9	2.3E-01	1.1	6.0E-01
STY1588	pntB	0.4	4.7E-04	0.9	1.5E-01	0.9	5.8E-01
STY1610	-	2.1	4.1E-02	0.6	4.9E-01		
STY1615	-	3.9	7.2E-08	1.3	8.1E-03		

STY1649	ompS2	0.4	2.4E-01	0.3	1.6E-02		
STY1664	-	2.8	2.9E-10	1.9	1.0E-05	1.5	2.7E-03
STY1708	ssaL	1.1	5.1E-01	0.4	1.2E-03	0.9	3.8E-01
STY1711	ssaJ	1.0	8.3E-01	0.4	8.9E-04	0.4	3.2E-05
STY1712	ssaI	7.3	no replicates	0.2	3.0E-03	0.4	1.2E-03
STY1713	ssaH	1.4	no replicates	0.2	3.7E-03	0.3	5.2E-05
STY1722	sseB	0.9	5.1E-01	0.3	2.7E-05	0.5	1.4E-05
STY1728	ssrA	1.0	8.6E-01	0.3	1.2E-02	1.4	1.52E-01
STY1723	sseA	1.0	9.4E-01	0.3	1.6E-03		
STY1725	ssaD	0.4	2.9E-04	0.9	4.8E-01		
STY1815	gdhA	2.4	3.7E-08	1.3	1.5E-03		
STY1867	-	0.4	8.7E-04	0.9	2.2E-01	1.0	6.8E-01
STY1871	STY1871	1.8	2.1E-05			2.1	2.4E-09
STY1922	gdhA	4.3	1.9E-11	2.2	2.0E-08		
STY1925	-	2.2	2.6E-10	1.4	1.6E-04		
STY1927	mltE	2.6	9.9E-14	1.4	4.4E-05	1.2	1.6E-01
STY1930	dadX	7.3	2.3E-10	1.6	3.2E-04	1.5	2.6E-02
STY1931	dadA	17.0	7.1E-16	1.7	3.2E-07	1.7	4.0E-02
STY1975	htpX	2.2	2.0E-06	1.4	5.1E-03	1.7	7.4E-05
STY1991	-	4.0	2.8E-03	1.5	6.0E-04	2.0	3.1E-02
STY2141	yecI	0.4	7.7E-03	0.5	1.3E-03		
STY2159	-	2.4	7.3E-11	1.4	2.5E-03	1.4	8.9E-02
STY2167	fliC	1.1	2.9E-01			2.5	2.3E-04
STY2188	fliQ	1.5	2.2E-04			2.0	7.3E-04
STY2203	ompS1	0.4	4.4E-04	0.2	2.3E-05	0.3	5.2E-09
STY2235	cbiT	2.1	2.0E-09	1.2	7.0E-02		
STY2421	mglC	2.0	3.2E-08	1.5	1.0E-05		
STY2424	mglB	2.1	2.6E-07	1.2	4.0E-02		
STY2474	dsbE1	4.7	2.7E-15	1.3	8.7E-03		
STY2475	ccmF1	4.9	1.1E-14	1.4	2.8E-02		
STY2476	ccmE1	3.3	1.3E-07	1.2	1.0E-01		
STY2478	ccmC1	4.4	4.5E-14	1.1	6.8E-02	0.8	6.1E-01
STY2481	napC	14.2	4.0E-17	1.0	8.6E-01	1.0	8.8E-01
STY2482	napB	12.3	1.2E-13	0.9	5.3E-01		
STY2483	napH	5.3	2.3E-08	1.6	5.4E-03		
STY2484	napG	4.7	4.3E-08	1.2	3.6E-02		
STY2485	napA	8.6	6.8E-10	1.0	8.6E-01		
STY2486	yojF	4.3	5.6E-08	0.9	3.2E-01	1.0	9.5E-01
STY2487	napF	4.9	3.0E-06	0.8	1.1E-01		
STY2493	ompC	0.0	4.2E-06	0.0	2.1E-06	0.0	3.3E-05
STY2585	argT	3.5	1.2E-06	0.9	7.9E-01		
STY2621	-	2.9	9.3E-08	1.4	6.3E-03		
STY2623	fadL	2.1	1.3E-03	1.3	3.4E-01		
STY2730	-	0.5	1.3E-03	1.2	1.8E-01		
STY2763a	-	0.5	5.5E-03	1.3	4.5E-03	1.4	4.1E-01
STY2771	ndk	2.9	2.2E-08	1.7	7.8E-06	1.6	8.1E-03
STY2790	yfhP	1.1	6.5E-01			2.4	4.6E-03
STY2805	cadB	0.4	3.2E-04	1.9	1.6E-09	1.8	1.3E-02
STY2806	cadA	0.4	3.8E-04	2.2	2.8E-06	1.5	7.5E-02
STY2842	yfiG	2.2	2.0E-10	1.4	2.2E-05	1.6	5.3E-04
STY2901	-	0.4	1.3E-02	0.3	3.1E-03		
STY2903	tctE	2.3	1.5E-06	1.6	4.1E-02		
STY2904	tctD	3.7	2.6E-10	1.4	4.8E-05	1.0	8.3E-01
STY2906	-	2.0	4.0E-04	1.5	2.3E-01		
STY2909	-	3.1	3.9E-04	1.0	9.1E-01		
STY2912	gabT	2.4	1.4E-03	1.3	2.6E-02		
STY2974	hycB	2.1	4.4E-03	1.6	1.7E-01		
STY2987	sprB	0.4	1.3E-03	0.7	4.7E-03	1.4	1.8E-01
STY2988	sprA	0.5	4.5E-03	0.7	1.1E-02	1.4	8.0E-02
STY3004	sipF	1.1	4.0E-01	1.1	4.3E-01	2.2	1.0E-02
STY3006	sipD	0.7	1.4E-02	0.9	3.4E-01	2.0	1.1E-02
STY3009	spaT	0.7	2.3E-02	1.1	5.1E-01	2.0	5.5E-04
STY3014	spaO	0.7	5.0E-02	1.1	5.6E-01	2.5	8.9E-05

STY3016	spaM	0.7	6.2E-02	1.0	8.9E-01	2.2	1.3E-03
STY3017	spaI	0.8	7.1E-02	1.2	9.8E-02	2.3	1.4E-03
STY3018	spak	0.6	6.8E-03	0.9	4.1E-01	2.4	1.8E-03
STY3049	rpoS	2.7	1.4E-09	1.9	3.3E-08	2.0	7.4E-04
STY3097	-	0.3	1.4E-04	1.0	8.1E-01	1.3	2.6E-01
STY3098	ygcX	0.2	1.1E-04	0.9	6.9E-01	0.9	5.5E-01
STY3099	ygcY	0.2	5.5E-05	1.2	8.3E-02		
STY3100	ygcZ	0.1	9.9E-05	0.9	7.4E-01		
STY3164	yqeF	3.4	2.6E-13	1.5	2.3E-04		
STY3176	stdB	2.5	2.9E-11	1.2	7.9E-03	1.7	1.1E-05
STY3178	STY3178	1.3	7.8E-02	1.0	6.2E-01	0.1	6.1E-08
STY3179	STY3179	1.2	2.3E-01	0.9	6.0E-01	0.0	7.7E-09
STY3296	-	2.4	8.2E-08	1.0	8.8E-01		
STY3297	ordL	4.3	1.2E-04	1.0	9.6E-01		
STY3317	hybD	0.4	5.0E-04	0.7	4.1E-03		
STY3318	hybC	0.4	5.7E-04	0.6	9.4E-04		
STY3319	hybB	0.4	3.0E-03	0.6	1.7E-02		
STY3320	hybA	0.5	1.1E-03	0.7	6.6E-03		
STY3321	hybo	0.5	1.6E-03	0.6	3.9E-03		
STY3394	cheM	1.9	1.8E-06	1.8	2.1E-05	2.2	1.3E-02
STY3395	air	2.7	1.6E-08	2.5	8.4E-08		
STY3405	-	11.2	2.9E-05				
STY3406	STY3406	1.7	1.0E-04	1.4	1.6E-03	3.3	2.1E-09
STY3411	-	2.3	9.4E-08	1.4	1.0E-03	2.5	1.1E-02
STY3427	tdcB	0.5	2.7E-02	0.5	5.6E-03		
STY3429	-	0.2	1.2E-04	1.1	5.0E-01		
STY3430	garR	0.2	9.3E-05	0.9	2.4E-01		
STY3431	garL	0.1	3.6E-05	0.9	7.1E-01		
STY3432	garD	0.2	6.3E-05	1.1	1.6E-01		
STY3460	STY3460	1.4	1.8E-02	1.1	4.6E-01	2.1	2.7E-03
STY3539	mdh	2.1	1.9E-07	1.4	7.5E-04	1.7	1.1E-04
STY3558	STY3558	0.7	2.3E-02	0.8	1.1E-02	2.4	3.3E-10
STY3559	accB	0.8	1.6E-01	0.6	9.3E-04	2.3	4.6E-06
STY3572	yhdV	1.0	6.8E-01	1.0	7.7E-01	0.5	2.2E-05
STY3577	fadB	23.0	3.7E-19	1.5	2.6E-04	2.1	4.4E-02
STY3578	fadA	17.9	2.8E-19	1.4	1.7E-03		
STY3658	-	2.9	3.7E-02				
STY3671	STY3671					2.2	5.9E-03
STY3720	rsD	3.3	5.5E-11	1.2	1.2E-01		
STY3748	udhA	3.5	1.1E-09	1.5	2.4E-04	1.7	2.5E-05
STY3778	hsIV	2.4	7.3E-08	1.1	1.5E-01	2.4	1.0E-04
STY3778	hsIV	2.4	7.3E-08	1.1	1.5E-01	2.4	1.0E-04
STY3779	hsIU	1.8	3.3E-06	1.1	5.1E-01	2.0	2.6E-04
STY3784	glpK	0.7	2.2E-02	0.8	8.9E-02	0.5	3.1E-02
STY3790	-	9.7	4.6E-14	0.9	6.2E-01	1.3	6.4E-02
STY3791	-	9.3	3.1E-13	0.9	5.4E-01	1.2	8.0E-02
STY3792	yneB	4.2	1.6E-08	0.8	1.2E-01	1.1	4.5E-01
STY3793	-	8.2	5.2E-16	0.9	1.1E-01		
STY3794	ydeZ	10.8	2.5E-11	0.8	1.4E-01		
STY3795	-	9.2	2.8E-09	0.9	2.6E-01		
STY3796	-	10.6	3.4E-09	0.6	1.6E-03		
STY3797	ydeW	4.8	2.3E-08	0.7	3.2E-02		
STY3798	ydeV	6.7	2.7E-08	1.0	9.8E-01		
STY3811	cpxP	3.2	3.6E-05	0.9	4.1E-01	0.9	2.0E-01
STY3831	yiiL	2.3	3.6E-08	1.2	2.0E-02	1.7	1.3E-02
STY3842	fdoI	1.9	9.7E-06	1.4	1.3E-03	2.2	1.7E-06
STY3879	STY3879	0.9	4.5E-01	1.3	1.1E-02	0.5	2.3E-02
STY3901	asnA	0.4	1.5E-03	0.7	1.7E-02	0.9	3.3E-01
STY4023	mgtB	1.4	2.0E-01	0.9	7.3E-01	2.1	2.6E-06
STY4025	slsA	0.0	1.4E-05	0.1	1.2E-05	0.2	2.5E-08
STY4146	-	0.1	5.6E-04	0.1	1.7E-03		
STY4168	dppA	2.2	2.5E-07	1.3	1.4E-03	1.4	8.0E-03
STY4294	ompR	0.3	1.3E-04	0.2	1.6E-05	0.4	6.5E-05

STY4299	hslR	2.1	1.1E-07	1.0	8.3E-01	1.3	1.8E-01
STY4321	nirD	2.5	9.2E-10	1.1	1.3E-01		
STY4322	nirB	2.1	1.5E-06	0.9	6.5E-01		
STY4340	yheR	2.5	3.5E-07	1.1	4.1E-01	1.4	1.7E-01
STY4400	metA	2.4	9.2E-03	1.2	1.1E-01	1.3	1.5E-01
STY4401	aceB	4.9	2.2E-07	1.8	1.0E-06		
STY4402	aceA	5.9	9.1E-08	1.7	1.4E-04	2.0	6.8E-03
STY4403	aceK	6.9	1.0E-07	1.7	8.4E-06		
STY4440	yjbO	0.8	3.1E-01	1.0	8.4E-01	4.5	1.1E-08
STY4462	yjcC	2.2	1.7E-05	1.3	1.6E-01		
STY4471	-	3.5	2.7E-10	1.3	8.2E-03		
STY4472	-	2.9	6.3E-07	1.2	7.4E-02		
STY4473	acs	4.8	1.0E-06				
STY4475	nrfA	4.8	1.8E-12	0.9	2.9E-01		
STY4476	nrfB	3.4	9.7E-12	1.2	2.7E-02		
STY4477	nrfC	4.2	1.6E-10	1.1	1.3E-01	1.0	8.5E-01
STY4478	nrfD	3.6	1.0E-08	1.1	3.2E-01		
STY4480	-	2.1	2.7E-07	1.0	8.8E-01		
STY4497	mela	0.3	1.2E-04	2.1	2.8E-07		
STY4498	melB	0.4	2.7E-04	1.4	1.7E-04		
STY4501	dcuR	3.6	3.8E-10	1.2	4.4E-02		
STY4508	dmsC	2.1	9.6E-04	1.2	1.2E-01		
STY4519	phoN	1.3	4.9E-02	1.3	1.9E-02	2.1	3.5E-06
STY4539	pilL	2.0	2.3E-02	1.1	6.2E-01		
STY4540	pilM	2.2	5.2E-03	1.2	1.4E-01		
STY4553	pilK	2.3	3.3E-03	0.7	2.7E-01		
STY4618	-	2.8	7.6E-10	1.9	2.5E-04	2.4	5.6E-02
STY4651	vexE	0.1	1.8E-05	0.0	5.7E-06		
STY4652	vexD	0.1	7.2E-05	0.0	5.9E-06		
STY4653	vexC	0.1	3.8E-02	0.0	4.7E-06	0.5	6.7E-03
STY4654	vexB	0.4	1.3E-03	0.2	5.2E-05	1.3	3.6E-01
STY4655	vexA	0.0	4.0E-05	0.0	6.5E-06		
STY4656	tviE	0.1	4.0E-05	0.1	1.7E-05		
STY4659	tviD	0.4	3.3E-04	0.2	3.4E-05	1.1	5.1E-01
STY4660	tviC	0.0	1.7E-05	0.0	1.3E-05		
STY4661	tviB	0.0	2.7E-05	0.0	2.8E-05	0.5	1.5E-02
STY4662	tviA	0.0	5.9E-06	0.0	3.2E-06	0.2	9.4E-09
STY4684	dcuA	0.1	4.7E-05	0.6	2.5E-03		
STY4685	aspA	0.4	4.5E-04	0.7	7.4E-03	0.8	4.9E-01
STY4754	cycA	2.4	1.6E-09	1.2	8.9E-02	1.2	1.4E-01
STY4757	ytfE	0.9	8.2E-01	1.0	9.6E-01	6.7	1.8E-05
STY4767	msrA	2.5	3.0E-08	1.1	5.8E-02	2.2	4.1E-07
STY4800	pyrB	0.5	4.8E-03	1.0	8.3E-01		
STY4801	-	0.3	9.4E-05	0.5	1.5E-04	0.7	1.1E-02
STY4802	-	0.3	2.1E-04	0.5	8.3E-05		
STY4803	-	0.2	5.1E-05	0.3	4.1E-05	0.9	4.5E-01
STY4804	-	0.2	4.8E-05	0.3	2.5E-05		
STY4805	-	0.2	4.6E-05	0.4	4.1E-05		
STY4806	-	0.5	2.0E-03	0.6	4.7E-04		
STY4869	STY4869	0.6	2.0E-02	1.0	6.8E-01	0.4	5.0E-03
STY4892	tsr	2.5	1.4E-09	2.7	1.2E-12		
STY4908	rimI	0.3	5.7E-04	0.7	1.0E-02		

## 9.9 chIP data

Motif

TGTWACAW	AATATATA	CTAGACTA	CTWAGGGR	GTGTSTAY	Score	Down stream gene	Function
					2.75	t0104	hypothetical
					2.27	araC	arabinose regulator
2					2.67	yabB	conserved hypothetical
			2		2.91	t0292	putative sensor kinase
					2.31	XseA	exodeoxyribonuclease large subunit
					2.57	yffB	conserved hypothetical
					2.76	pgtP	phosphoglycerate transporter
					2.32	fadL	long-chain fatty acid transport
2					2.93	fadL	long-chain fatty acid transport
							lysine arginine ornithine periplasmic protein
					2.66	argT	
					3.96	t0528	conserved hypothetical
					3.25	nuoA	NADH dehydrogenase I chain A
					2.58	nuoA	NADH dehydrogenase I chain A
					2.45	ompC	
1					2.45	ompC	
							D-galactose binding periplasmic protein
					4.58	mglB	
2					2.61	rfbB	dTDP-glucose 4,6-dehydratase
2					6.99	ompS	
					3.34	fliC	
					2.57	t1022	conserved hypothetical
					2.56	t1022	conserved hypothetical
					2.38	t1080	putative membrane protein
					2.37	rplT	50S ribosomal subunit L20
				1	4.07	ssrA	SPI-2 regulator
1				1	5.41	t1320	putative proton/oligo symporter
					2.35	narU	nitrite extrusion
					2.43	narU	nitrite extrusion
2					6.28	csgD	curli regulator
					2.40	csgD	curli regulator
					3.22	t1790	conserved hypothetical
					5.44	t1903	putative bacteriophage proteins
1					4.84	ompX	
					3.30	sdhC	
3					4.09	sdhC	
					2.31	gltA	
					2.49	gltA	
				1	2.38	cspE	cold shock-like protein
					2.93	acrR	potential acrAB operon repressor
					4.56	rpmJ	putative 50S ribosomal subunit L36
					2.50	psiF	phosphate starvation-inducible protei
				1	2.59	yafK	putative exported protein
					2.89	yafK	putative exported protein

		2.50	t2565	hypothetical protein
		3.21	yfiA	putative sigma-54 modulation protein
	1	2.74	-	Intergenic near virK
		3.32	sitA	SPI-1 iron transport
		2.66	hilC	SPI-1 regulator
		2.83	hilC	within gene
		2.38	hilC	middle of hilC
		2.71	rpoS	
		2.40	rpoS	
		2.98	rpoS	
		2.43	sopD	
		2.12	t2863	
		2.56	sraE	SraE_OmrA_OmrB small RNA
		3.00	stdA	probable fimbrial
	1	2.15	stdA	probable fimbrial
		2.22	stdA	probable fimbrial
		2.31	-	Intergenic
		2.65	t2957	probable isomerase
	2	2.74	galP	galactose-proton symporter
		3.17	galP	galactose-proton symporter
		2.70	t3046	LysR-family transcriptional regulator
		2.64	mug	G/U mismatch-specific DNA glycosylase
	1	2.62	air	aerotaxis receptor protein
		2.83	t3144	possible drug efflux protein
	2	3.15	t3144	possible drug efflux protein
		3.06	t3146	putative membrane protein
		3.44	t3197	probable amino acid permease
	1	2.35	argG	arginosuccinate synthase
		2.58	argG	arginosuccinate synthase
	2	2.79	t3244	conserved hypothetical protein
		2.47	t3244	conserved hypothetical protein
		2.76	sspA	stringent starvation protein
	1	2.99	mreB	rod shaped determining protein
	2	2.69	mreB	rod shaped determining protein
		3.12	-	Intergenic
		3.38	udp	uridine phosphorylase
		3.13	purH	phosphoribosylaminoimidazolecarbox
		2.94	rplJ	50S ribosomal subunit L10
		3.42	rplK	50S ribosomal subunit L11
		2.78	glpF	glycerol uptake facilitator
	1	2.64	glpF	glycerol uptake facilitator
		2.83	glpF	glycerol uptake facilitator
	1	2.63	glpK	middle of glpK, contiguous with glpF
		2.74	t3554	putative membrane protein
		2.74	sodA	manganese superoxide dismutase
		2.53	rhaT	l-rhamnose-proton symporter
	1	2.63	fdhD	necessary for formate dehydrogenase
		2.73	glnA	glutamine synthase
		3.21	glnA	glutamine synthase

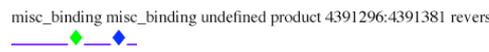
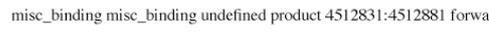
					2.45	yihG	putative acyltransferase
1					2.57	t3665	probable PTS system permease
					2.34	rpmH	50S ribosomal subunit L34
					2.36	ilvB	acetohydroxy acid synthase I and ovi
					6.98	t3725	ivbL leader peptide
							putative carbohydrate kinase
					2.52	rmbA	conserved hypothetical upstream of r
					3.23	ttk	tetR-family transcriptional regulator
					3.40	cspA	cold shock protein A
2					5.28	dppA	periplasmic dipeptide transport protein
					2.80	t3891	and overlaps with pseudo
					2.43	yhjS	hypothetical protein
					2.32	t3896	conserved hypothetical
1					2.70	yhjH	conserved hypothetical
					5.46	yhjE	conserved hypothetical
					2.70	rpoH	sigma-32
					2.66	rpoH	sigma-32
					2.36	rpoH	sigma-32
2				1	4.40	ompR	
	1				2.87	pckA	phosphoenolpyruvate carboxykinase
					2.62	pckA	phosphoenolpyruvate carboxykinase
					2.12	yrfE	putative NUDIX hydrolase
					2.57	yrfE	putative NUDIX hydrolase
1	1				2.37	t4222	hypothetical protein
					2.80	t4341	hypothetical protein
					3.79	t4341	hypothetical protein
1		1			14.39	tviA	viab locus
					2.42	t4357	probable phage integrase
3				1	8.17	t4357	probable phage integrase
							hypothetical protein contiguous with
					2.37	t4358	integrase
					2.43	efp	elongation factor p
					2.98	artJ	arginine-binding periplasmic protein
					2.35	lasT	putative RNA methyltransferase
22	7	1	5	8			

		<b>Motifs in Session</b>
<u>misc_binding misc_binding undefined product 117836:117886 forward</u>	Upstream of t0104 Hypothetical	
<u>misc_binding misc_binding undefined product 122946:123001 forward</u>	Upstream of araC arabinose regulator	◆ TGTWACAW
<u>misc_binding misc_binding undefined product 140906:140956 forward</u>	Upstream of yabB conserved hypothetical	◆ AATATATA
<u>misc_binding misc_binding undefined product 332896:332951 forward</u>	Upstream of t0292 putative sensor kinase	◆ GTGTSTAY
<u>misc_binding misc_binding undefined product 413906:414006 reverse</u>	Upstream of Xsea exodeoxyribonuclease large subunit	◆ CTAGACTA
<u>misc_binding misc_binding undefined product 447516:447596 forward</u>	Upstream of yffB conserved hypothetical	◆ CTWAGGGR
<u>misc_binding misc_binding undefined product 532691:532821 reverse</u>	Upstream of pgpP, phosphoglycerate transporter protein	
<u>misc_binding misc_binding undefined product 547201:547256 reverse</u>	Upstream of fadL long-chain fatty acid transport protein	
<u>misc_binding misc_binding undefined product 547321:547391 reverse</u>	Upstream of fadL long-chain fatty acid transport protein	
<u>misc_binding misc_binding undefined product 583251:583316 forward</u>	Upstream of argT, lysine-arginine-ornithine-binding periplasmic protein	
<u>misc_binding misc_binding undefined product 601951:602121 forward</u>	Upstream of t0528, conserved hypothetical	
<u>misc_binding misc_binding undefined product 609681:609816 forward</u>	Upstream of nuoA, NADH dehydrogenase I chain A	
<u>misc_binding misc_binding undefined product 610106:610156 forward</u>	Upstream of nuoA, NADH dehydrogenase I chain A	
<u>misc_binding misc_binding undefined product 680866:680921 forward</u>	Upstream of ompC	
<u>misc_binding misc_binding undefined product 680996:681046 forward</u>	Upstream of ompC	
<u>misc_binding misc_binding undefined product 750226:750396 forward</u>	Upstream of mglB, D-galactose-binding periplasmic protein	
<u>misc_binding misc_binding undefined product 867191:867261 forward</u>	Upstream of rfbB, dTDP-glucose 4,6-dehydratase	
<u>misc_binding misc_binding undefined product 985081:985831 reverse</u>	Upstream of ompS	
<u>misc_binding misc_binding undefined product 1013766:1013841 forward</u>	Upstream of fliC	
<u>misc_binding misc_binding undefined product 1106256:1106306 reverse</u>	Upstream of t1022, conserved hypothetical protein	
<u>misc_binding misc_binding undefined product 1106336:1106396 reverse</u>	Upstream of t1022, conserved hypothetical protein	
<u>misc_binding misc_binding undefined product 1162231:1162286 reverse</u>	Upstream of t1080, putative outermembrane protein	
<u>misc_binding misc_binding undefined product 1283291:1283431 forward</u>	Upstream of rpIT, 50S ribosomal subunit protein L20	
<u>misc_binding misc_binding undefined product 1334176:1334376 reverse</u>	Upstream of ssrA, two-component sensor kinase	
<u>misc_binding misc_binding undefined product 1382041:1382556 reverse</u>	Upstream of t1320, putative proton/oligopeptide symporter	
<u>misc_binding misc_binding undefined product 1535386:1535486 forward</u>	Upstream of narU, nitrite extrusion	
<u>misc_binding misc_binding undefined product 1535516:1535591 forward</u>	Upstream of narU, nitrite extrusion	
<u>misc_binding misc_binding undefined product 1840011:1840611 forward</u>	Upstream of csgD, curli regulator	
<u>misc_binding misc_binding undefined product 1840701:1840761 forward</u>	Upstream of csgD, curli regulator	

misc_binding misc_binding undefined product 1851236:1851326 reverse	Upstream of t1790, conserved hypothetical
misc_binding misc_binding undefined product 1956466:1956626 reverse	Upstream of t1903, putative bacteriophage protein
misc_binding misc_binding undefined product 2117686:2117976 reverse	Upstream of ompX
misc_binding misc_binding undefined product 2208471:2208551 reverse	Upstream of sdhC, succinate dehydrogenase
misc_binding misc_binding undefined product 2208611:2208806 reverse	Upstream of sdhC, succinate dehydrogenase
misc_binding misc_binding undefined product 2208841:2208891 forward	Upstream of gltA, citrate synthase
misc_binding misc_binding undefined product 2208951:2209026 forward	Upstream of gltA, citrate synthase
misc_binding misc_binding undefined product 2303376:2303471 reverse	Upstream of cspE, cold shock-like protein
misc_binding misc_binding undefined product 2454496:2454551 reverse	Upstream of acrR, potential acrAB operon repressor
misc_binding misc_binding undefined product 2461571:2461746 reverse	Upstream of rpmJ, putative 50S ribosomal protein L36
misc_binding misc_binding undefined product 2552046:2552101 reverse	Upstream of psiF, phosphate starvation-inducible protein
misc_binding misc_binding undefined product 2614081:2614161 forward	Upstream of yafK, putative exported protein
misc_binding misc_binding undefined product 2614221:2614296 forward	Upstream of yafK, putative exported protein
misc_binding misc_binding undefined product 2642021:2642076 reverse	Upstream of t2565, hypothetical protein
misc_binding misc_binding undefined product 2698626:2698686 forward	Upstream of yfiA, putative sigma-54 modulation protein
misc_binding misc_binding undefined product 2765436:2765501 forward	Upstream of intergenic, near virK
misc_binding misc_binding undefined product 2845046:2845131 forward	Upstream of sitA, SPI-1, iron transport
misc_binding misc_binding undefined product 2855161:2855221 forward	Upstream of hilC
misc_binding misc_binding undefined product 2855736:2855881 forward	Within hilC
misc_binding misc_binding undefined product 2856206:2856261 forward	Middle of hilC
misc_binding misc_binding undefined product 2902056:2902141 reverse	Upstream of rpoS
misc_binding misc_binding undefined product 2902306:2902376 reverse	Upstream of rpoS
misc_binding misc_binding undefined product 2902401:2902476 reverse	Upstream of rpoS
misc_binding misc_binding undefined product 2921856:2921941 forward	Upstream of sopD
misc_binding misc_binding undefined product 2942221:2942291 forward	Upstream of t2863, hypothetical protein
misc_binding misc_binding undefined product 3013351:3013406 reverse	Upstream of tnpA (t2920)
misc_binding misc_binding undefined product 3034766:3034936 reverse	Upstream of stdA, probable fimbrial protein
misc_binding misc_binding undefined product 3035011:3035061 reverse	Upstream of stdA, probable fimbrial protein
misc_binding misc_binding undefined product 3035181:3035316 reverse	Upstream of stdA, probable fimbrial protein

misc_binding misc_binding undefined product 3035011:3035061 reverse	Upstream of stdA, probable fimbrial protein
misc_binding misc_binding undefined product 3035181:3035316 reverse	Upstream of stdA, probable fimbrial protein
misc_binding misc_binding undefined product 3039506:3039556 forward	Intergenic
misc_binding misc_binding undefined product 3046486:3046536 forward	Upstream of t2957 probable isomerase
misc_binding misc_binding undefined product 3094216:3094271 forward	Upstream of galP, galactose-proton symport
misc_binding misc_binding undefined product 3094296:3094381 forward	Upstream of galP, galactose-proton symport
misc_binding misc_binding undefined product 3125301:3125356 forward	Upstream of t3046, LysR-family transcriptional regulator
misc_binding misc_binding undefined product 3221961:3222036 reverse	Upstream of mug, G/U mismatch-specific DNA glycosylase
misc_binding misc_binding undefined product 3227271:3227321 reverse	Upstream of air, aerotaxis receptor protein
misc_binding misc_binding undefined product 3234941:3235091 forward	Upstream of t3144, possible drug efflux protein
misc_binding misc_binding undefined product 3235111:3235196 forward	Upstream of t3144, possible drug efflux protein
misc_binding misc_binding undefined product 3237916:3238046 forward	Upstream of t3146, putative membrane protein
misc_binding misc_binding undefined product 3287291:3287486 reverse	Upstream of t3197, probable amino acid permease
misc_binding misc_binding undefined product 3299766:3299816 forward	Upstream of argG, arginosuccinate synthase
misc_binding misc_binding undefined product 3299911:3299986 forward	Upstream of argG, arginosuccinate synthase
misc_binding misc_binding undefined product 3330321:3330411 reverse	Upstream of t3244, conserved hypothetical protein
misc_binding misc_binding undefined product 3330446:3330496 reverse	Upstream of t3244, conserved hypothetical protein
misc_binding misc_binding undefined product 3351291:3351341 reverse	Upstream of sspA, stringent starvation protein
misc_binding misc_binding undefined product 3383646:3383721 reverse	Upstream of mreB, rod shaped determining protein
misc_binding misc_binding undefined product 3383761:3383826 reverse	Upstream of mreB, rod shaped determining protein
misc_binding misc_binding undefined product 3417121:3417226 reverse	Intergenic
misc_binding misc_binding undefined product 3430376:3430436 reverse	Upstream of udp, uridine phosphorylase
misc_binding misc_binding undefined product 3543791:3543881 forward	Upstream of purH, phosphoribosylaminoimidazolecarboxamide formyltransferase
misc_binding misc_binding undefined product 3572556:3572651 reverse	Upstream of rplJ, 50S ribosomal subunit protein L10
misc_binding misc_binding undefined product 3573836:3573941 reverse	Upstream of rplK, 50S ribosomal subunit protein L11
misc_binding misc_binding undefined product 3633856:3633961 forward	Upstream of glpF, glycerol uptake facilitator protein
misc_binding misc_binding undefined product 3633986:3634076 forward	Upstream of glpF, glycerol uptake facilitator protein
misc_binding misc_binding undefined product 3634131:3634366 forward	Upstream of glpF, glycerol uptake facilitator protein

misc_binding misc_binding undefined product 3635416:3635481 forward	Middle of glpK which is contiguous with glpF
misc_binding misc_binding undefined product 3655631:3655691 reverse	Upstream of t3554, putative membrane protein
misc_binding misc_binding undefined product 3664726:3664781 reverse	Upstream of sodA, manganese superoxide dismutase
misc_binding misc_binding undefined product 3668861:3668921 forward	Upstream of rhaT, L rhamnose-proton symporter
misc_binding misc_binding undefined product 3683026:3683086 reverse	Upstream of fdhD, necessary for formate dehydrogenase activity
misc_binding misc_binding undefined product 3713696:3713746 forward	Upstream of glnA, glutamine synthetase
misc_binding misc_binding undefined product 3713801:3713866 forward	Upstream of glnA, glutamine synthetase
misc_binding misc_binding undefined product 3725096:3725151 forward	Upstream of yihG, putative acyltransferase
misc_binding misc_binding undefined product 3773706:3773771 forward	Upstream of t3665, probable PTS system permease
misc_binding misc_binding undefined product 3790051:3790101 reverse	Upstream of rpmH, 50S ribosomal protein I34
misc_binding misc_binding undefined product 3836456:3836506 forward	Upstream of ilvB, acetohydroxy acid synthase I and overlaps ivbL leader peptide
misc_binding misc_binding undefined product 3839581:3839736 forward	Upstream of t3725, putative carbohydrate kinase
misc_binding misc_binding undefined product 3880361:3880426 reverse	Upstream of rmbA, conserved hypothetical upstream of misL (pseudo)
misc_binding misc_binding undefined product 3908531:3908616 reverse	Upstream of ttk, putative TetR-family transcriptional regulator
misc_binding misc_binding undefined product 3997551:3997671 reverse	Upstream of cspA, cold shock protein A
misc_binding misc_binding undefined product 4011051:4011421 forward	Upstream of dppA, periplasmic dipeptide transport protein and overlaps t3884 (pseudo)
misc_binding misc_binding undefined product 4019696:4019821 forward	Upstream of t3891, hypothetical protein (43aa in length)
misc_binding misc_binding undefined product 4023446:4023511 reverse	Upstream of yhjS, conserved hypothetical
misc_binding misc_binding undefined product 4023521:4023571 forward	Upstream of t3896, conserved hypothetical
misc_binding misc_binding undefined product 4040691:4040751 forward	Upstream of yhjH, conserved hypothetical
misc_binding misc_binding undefined product 4045011:4045176 reverse	Upstream of yhjE, hypothetical metabolite transport protein
misc_binding misc_binding undefined product 4093596:4093651 forward	Upstream of rpoH, RNA polymerase sigma-32 factor
misc_binding misc_binding undefined product 4093666:4093716 forward	Upstream of rpoH, RNA polymerase sigma-32 factor
misc_binding misc_binding undefined product 4093761:4093856 forward	Upstream of rpoH, RNA polymerase sigma-32 factor
misc_binding misc_binding undefined product 4154671:4154966 forward	Upstream of ompR
misc_binding misc_binding undefined product 4158646:4158701 reverse	Upstream of pckA, phosphoenolpyruvate carboxykinase
misc_binding misc_binding undefined product 4158761:4158821 reverse	Upstream of pckA, phosphoenolpyruvate carboxykinase
misc_binding misc_binding undefined product 4165156:4165206 forward	Upstream of yrfE, putative NUDIX hydrolase
misc_binding misc_binding undefined product 4165226:4165331 forward	Upstream of yrfE, putative NUDIX hydrolase

	misc_binding misc_binding undefined product 4391296:4391381 reverse	Upstream of t4222, hypothetical protein
	misc_binding misc_binding undefined product 4491771:4491831 forward	Upstream of t4341, hypothetical protein
	misc_binding misc_binding undefined product 4491881:4491966 forward	Upstream of t4341, hypothetical protein
	misc_binding misc_binding undefined product 4507511:4508051 reverse	Upstream of tvIA, viab locus
	misc_binding misc_binding undefined product 4511076:4511141 forward	Upstream of t4357, probable phage integrase
	misc_binding misc_binding undefined product 4511246:4511846 forward	Upstream of t4357, probable phage integrase
	misc_binding misc_binding undefined product 4512831:4512881 forward	Upstream of t4358, hypothetical protein, contiguous with probable phage integrase
	misc_binding misc_binding undefined product 4538976:4539061 forward	Upstream of efp, elongation factor p
	misc_binding misc_binding undefined product 4555771:4555851 reverse	Upstream of artJ, probable arginine-binding periplasmic protein
	misc_binding misc_binding undefined product 4790961:4791041 forward	Upstream of lasT, putative RNA methyltransferase