



CMHD Pathology Report



CMHD Pathology Core

Toronto Centre for
Phenogenomics
25 Orde St. 3rd fl.
Toronto, Ont. M5T 3H7
Tel.(416) 586-8375
Fax (416) 586-5993

contact: Dr. Susan
Newbigging
email:
newbigging@lunenfeld.ca

Principle Investigator: Dr. Colin McKerlie ICSIG

Institute: Sick Kids
Address:

ReportID: Report Date: November 23,
2011
Pathologist: H. Adissu

Mouse Genetics Project

Wellcome Trust Sanger
Institute
Wellcome Trust Genome
Campus
Hinxton, Cambridge
CB10 1SA
UK

email:
MGPenquiries@sanger.ac.uk
[Mouse Portal](#)
[Europhenome](#)

CMHD LabID: N11-387

Relevant History:

(Body Weight Curves; Indirect Calorimetry; Body Composition (DEXA); Plasma Chemistry) Decreased total body fat amount, decreased body weight/length/mass, decreased amylase, increased creatinine, hypoalbuminemia, fragile skeleton (decreased BMD/BMC), decreased bone length

AnimalID: M00233376 Slc39a10

Histopathology Findings:

Histopath Description:

There is no lipid accumulation within hepatocytes.

Morphological Diagnosis:

Distribution: diffuse; **Severity:** severe;

Histopathology Comments:

Compared to wild type, there is minimal or no hepatic lipodosis.

Organ/Tissue Analyzed:

There were no significant findings in the following tissues: Calvarium, brain, eyes, ears, tongue, Harderian gland, zymbal gland, salivary glands, nasal sinuses, teeth, trachea, lungs, heart, thymus, thyroid gland, parathyroid gland, spleen, liver, gall bladder, exocrine and endocrine pancreas, esophagus, stomach, intestines, urinary organs and tract, adrenal gland, reproductive organs, lymph nodes, spinal cord, bones, bone marrow, skeletal muscles, brown fat, and skin.

AnimalID: M00233377 Slc39a10

Histopathology Findings:

liver (MA:0000358)

Histopath Description:

The overall hepatic lobular architecture is normal. Nearly 20-30% of hepatocytes contain large (8-12 um in diameter) intracytoplasmic clear vacuoles (macrovesicular lipid).

Morphological Diagnosis:

Distribution: Multifocal; **Severity:** mild; **MPATH Diagnosis:** lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic lipodosis

Histopathology Comments:

Hepatocellular vacuolar change of variable degree suggestive of lipodosis is present in all mice from WTSI, consistent with high lipid diet.

brain (MA:0000168)

Histopath Description:

There is a mild enlargement of the lateral ventricle.

Morphological Diagnosis:

Severity: mild; **MPATH Diagnosis:** hydrocephalus MPATH:639

Definitive Diagnosis:

hydrocephalus, lateral ventricle

Histopathology Comments:

Variable degree of hydrocephalus is observed in a proportion of wild type C57 Black 6 mice.

AnimalID: M00233379 Slc39a10**Histopathology Findings:****liver (MA:0000358)****Histopath Description:**

The overall hepatic lobular architecture is normal. Only 5% of hepatocytes contain large (8-12 um in diameter) intracytoplasmic clear vacuoles (macrovesicular lipid).

Morphological Diagnosis:

Distribution: Multifocal; **Severity:** mild; **MPATH Diagnosis:** lipid deposition MPATH:42

Definitive Diagnosis:

Hepatic lipidosis, minimal

Histopathology Comments:

Compared to wild type, there is minimal or no hepatic lipidosis.

eye (MA:0000261)**Histopath Description:**

The globe is small (approximately two-third of a normal adult eye). The ocular structures are well differentiated.

Morphological Diagnosis:

Distribution: Diffuse; **Severity:** moderate; **MPATH Diagnosis:** hypoplasia MPATH:133

Definitive Diagnosis:

Microphthalmia

Histopathology Comments:

Microphthalmia and anophthalmia are one of the most frequent ocular malformations in C57BL mice (Geiss and Yoshitomi, 1999).

AnimalID: M00233384 Slc39a10**Histopathology Findings:****Histopath Description:**

There is no lipid accumulation within hepatocytes.

Histopathology Comments:

Compared to wild type, there is minimal or no hepatic lipidosis.

brain (MA:0000168)**Histopath Description:**

There is a mild enlargement of the lateral ventricle.

Morphological Diagnosis:

Severity: mild; **MPATH Diagnosis:** hydrocephalus MPATH:639

Definitive Diagnosis:

hydrocephalus, lateral ventricle

Histopathology Comments:

Variable degree of hydrocephalus is observed in a proportion of wild type C57 Black 6 mice.

Report Summary and Recommendation:

There is absence and/or minimal lipidosis in this line consistent with decreased body fat amount and decreased body weight/length/mass. There are no histological findings that explain the changes in amylase, creatinine, and albumin. Other lesions are considered incidental and/or attributable to strain

background.

Liver - lipid depletion: MPATH:52