Wellcome Trust Sanger Institute
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Sqstm1 (MCGB; EPD0162_1_G07)

Allele: *Sqstm1*$^{tm1a(KOMP)Wtsi}$

Embryonic stem cell targeted: JM8.N4
Embryonic stem cell origin: C57BL/6N
Background used for Germ Line Transmission: C57BL/6J-Tyr^{cBrd}
Subsequent backcross background: C57BL/6N Taconic Denmark Inter cross from within Colony.
Genetic background: C57BL/6N Taconic Denmark; C57BL/6J-Tyr^{cBrd} ;C57BL/6N

Coat Colour Information:

Due to the presence of the mutation within the Tyrosinase gene of the C57BL/6J-Tyr^{C-Brd} colony used during the initial confirmation of germline transmission any intercrossing has the potential to produce albino offspring.

Non-Agouti (Black) and Albino

Breeding Performance and Lifespan:

- Generally heterozygous mice from this colony conform to normal expectations of the background strain.
- Homozygous Viable.

Bedding:

Aspen Chip derived from a Baltic supply – Supplier B&K Universal

Diet:

Autoclavable Mouse Breeder Diet 5021 – A controlled constant-nutrient diet formulated to compensate for nutrient losses that occur during steam sterilization. Supplier Lab Diet www.labdiet.com

Husbandry:

Cleaning frequency is based against cage numbers. Base changing is performed in a HEPA filtered change station which remains positive to the room environment. Gloved hands are disinfected between each cage. Diet is fed ad-libertum.

Housing System:

Individual Ventilated Cages maintained at positive pressure to the room with an average of 60 HEPA filtered air changes per hour.

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Further Information

This strain has observations noted on the following:

Embryo Expression
Adult Expression

As the mutant mouse strains generated by the Sanger MGP pass through the Sanger MGP primary phenotypic characterisation studies the information generated may be viewed through the Sanger Mouse Portal (www.sanger.ac.uk/mouseportal) where a gene of interest may be searched for. A Heat Map of phenotyping by assay is also available to view. Information regarding homozygous lethality and fertility may also be sourced here if determined.
Early notification on phenotyping data may be received by subscribing to the MGP-Early-Phenotyping-Alert.
Phenotype enquiries may be made through the contact MGPEnquiries@sanger.ac.uk .
A further source of phenotype information is the Europhenome Mouse Phenotyping Resource (www.europhenome.org)
Information regarding availability of knockout mouse resources may be queried at the International Knockout Mouse Consortium (IKMC; www.knockoutmouse.org).
Information relating to the knockout programmes may be found at the IKMC Knowledgebase, currently in development (www.knockoutmouse.org/content/ikmc-prototypes).

Information about targeting strategies may also be found at the IKMC website (www.knockoutmouse.org/about/targeting-strategies).

Supplementary Notes:

A strain with conditional potential may be mated to a FLPeR strain to delete the region of DNA flanked by FRT sites which includes the selectable cassette. Genotype confirmation of the deletion event should be carried out. The resulting conditional strain may be further progressed to incorporate Cre deleter transgenes to remove critical coding region(s) as desired.
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References

Widespread recombinase expression using FLPeR (flipper) mice. Farley FW, Soriano P, Steffen LS, Dymecki SM. (2000). Genesis *28* (3-4),106-110.

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