Fut1-deficient mice do not have epididymal alpha(1,2)fucosylated glycans or the fucosylated glycolipid, fucosyl G1, in pancreatic acinar glands. Homozygotes exhibit delayed maturation of nerve fibers in the glomerular layer of the olfactory bulb. This mutant mouse strain may be useful in studies of glycosidic molecular interactions and function, and olfactory nerve pathway development.

Donating Investigator

Steven Domino, University of Michigan
Details

Detailed Description

Mice that are homozygous for the targeted mutation are viable, fertile, normal in size and do not display any behavioral abnormalities. Homozygous mice may be identified by their agouti and chinchilla coat color. Alpha(1,2)fucosylated glycans are not detected in the epididymis of homozygotes. Fucosylated glycolipids (fucosyl GA1) are not detected in the pancreatic acinar glands of homozygotes. Homozygotes exhibit delayed maturation of nerve fibers in the glomerular layer of the olfactory bulb due to absence of cell surface carbohydrate, blood group H carbohydrate, expression in primary sensory neurons. The Donating Investigator reports that the beta-galactosidase is expressed. This mutant mouse strain may be useful in studies of glycosidic molecular interactions and function, and olfactory nerve pathway development.

This strain was transferred from the collection of the Consortium for Functional Glycomics.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Fut1<sup>tm15do</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Standard PCR: Fut1<sup>tm1Sdo</sup>
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as homozygotes. Homozygous mice may be identified by their agouti and chinchilla coat color.
Additional Breeding and Husbandry Support

Citation
When using the B6.129-Fut1<sup>tm1Sdo</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #006939 in your Materials and Methods section.

Animal Health Reports
Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

Pricing & Availability
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

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