

**B6;129P2-Olfr151<sup>tm42(Mc4r)Mom</sup>/MomJ**

Stock No: **028199**

 Targeted Mutation

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

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14% amino acid identity with OLFR151. This substitution allele is useful for assessing the minimal sequence requirements for a G protein coupled receptor that is driven by the promoter of an olfactory sensory receptor to facilitate monoallelic expression of olfactory receptors, coalescence of olfactory glomeruli, and signal transduction via cAMP in olfactory sensory neurons.

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## GENETIC OVERVIEW

Genetic Background

Generation

*Olf151<sup>tm42(Mc4r)Mom</sup>*

**Alele Type**

Targeted (Reporter, Inserted expressed sequence)

**Gene Symbol**

*Olf151*

**Gene Name**

olfactory receptor 151

VIEW GENETICS

## RESEARCH APPLICATIONS

Sensorineural Research  
Research Tools  
Cell Biology Research  
Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W   P R I C E   L I S T

### Details

#### Detailed Description

This substitution allele is partially successful as a surrogate olfactory receptor, but not as good as the substitution of beta 2 adrenergic receptor (see Stock# [006734](#)). Consistent with normal allelic exclusion of olfactory receptors, olfactory sensory neurons that express this GFP tagged MC4R substitution allele do not express any other olfactory receptor, proving this sequence adequate for monoallelic expression. However, the level of expression and number of olfactory neurons expressing this substitution allele are reduced compared with that of endogenous OLFR151 on non-mutant olfactory sensory neurons. Subcellular localization of this MC4R on olfactory sensory neurons is highly concentrated in the dendritic knob and endings of the cilia. Patch-clamp recordings show that these neurons respond to the MC4R selective agonist Ro27-3225. The axons from these neurons coalesce into smaller than normal glomeruli that are positioned in a more anterior position than the endogenous OLFR151 glomeruli normally are.

#### Development

#### Expression Data

#### Selected References

### Genetics

#### *Olf151<sup>tm42(Mc4r)Mom</sup>*

### Disease/Phenotype

#### Disease Terms

[+ Research Areas By Phenotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ References](#)

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## [- Technical Support](#)

C O N T A C T   T E C H N I C A L   S U P P O R T

### Genotyping Protocols

Standard PCR: [Olf151](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

Homozygotes are viable and fertile. The cryopreserved sperm were from homozygous males so recovered pups will be heterozygous.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the B6;129P2-*Olf151*<sup>tm42(Mc4r)Mom</sup>/MomJ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #028199 in your Materials and Methods section.

### Animal Health Reports

[Facility Barrier Level Descriptions](#)

*Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)*

## [- Pricing & Availability](#)



Cryo  
Recovery

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

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**CRYORECOVERY - DOMESTIC PRICING**

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Heterozygous for <a href="#">Olf151&lt;tm42(Mc4r)Mom&gt;</a>	\$2,854.50

RELATED PRODUCTS AND SERVICES		
<a href="#">Frozen Mouse Embryo</a>	B6;129P2-Olf151<tm42(Mc4r)Mom>/MomJ Mc4r->M71-IRES-tauGFP	\$2595.00

## PAYMENT TERMS AND CONDITIONS

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

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The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

## Terms Of Use

### TERMS OF USE

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Q U E S T I O N S   A B O U T   T E R M S   O F   U S E

### ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a license prior to shipping.](#)

### LICENSING INFORMATION

Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

## Related Strains

All

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By Gene

By Collection



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