

Insm1{GFP-Cre} mice contain a GFP-Cre fusion protein which replaces the Insm1 coding sequence. These mice express green fluorescent protein (GFP) under control of the Insm1 gene locus. Insm1 is expressed in pancreatic primordium starting at E9.5. Insm1 is also expressed in neural precursor cells and tumors of may be used for lineage tracing of Insm1-positive cells in both wild-type and Insm1-null mice.

Keywords: [Insm1](#) [Insm1^{GFP-Cre}](#) [Cre](#) [RMCE](#) [fluorescent reporter](#)

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Mouse Information

Common Name	Insm1 ^{GFP.Cre}
Research Applications	Cre-lox system Fluorescent proteins
MMRRC ID	36986-Jax
Jackson Laboratories Stock No	023899
VCMR ID	JX
Additional Strain Information	<i>Not provided</i>

Genetic Alteration

Mutation #1: RMCE Targeted Mutagenesis	
Type of Allele	Gene Replacement
Targeted Gene	Name: insulinoma-associated 1 Symbol: Insm1 NCBI: 53626
Allele	Name: targeted mutation 1.1 Symbol: Insm1 ^{tm1.1(GFP-Cre)}
Description of Targeting Vector	Through recombinase-mediated cassette exchange in ES cells, a 5232 bp fragment containing a GFP-Cre fusion gene was inserted into the Insm1 locus replacing the entire coding sequence of Insm1 gene. To facilitate positive selection of cassette-exchanged ES cells, a Pgk-Hygro selection cassette flanked by FRT sites was placed immediate downstream of the GFP-Cre fusion gene.
Vector Genbank File	pGT-Insm1.L71-2272_Gb.gb
Allele Map	<i>Not Provided</i>
PCR Genotyping Protocol	<i>Not provided</i>

Type of Allele	
Exchanged Cassette Gene Name	(53626)
Exchanged Cassette Allele Name	Insm1{LCA}
Description of Exchange Vector	Not Provided
Exchanged Cassette Genbank File	Insm1GFP.Cre.gb
PCR Genotyping Protocol	<i>Not provided</i>
Citations	<i>Not provided</i>


Background Strain Information

Strain Type	Inbred Strain
Chimera/Founder Genetic Background	129S6/SvEvTac
Current Genetic Background	CD-1
Number of Generations Backcrossed	10
Strain Description	Founder chimeras were bred with CD-1 mice for more than 10 generations.

Attachments

 [inism1.gfpcre.hygro_or__protocol_ks.doc](#) - Added on July 27, 2010 at 12:35 PM by Jill Lindner

PCR protocol for genotyping mice

 [Insm1.GFP.Cre.png](#) - Added on July 19, 2010 at 10:17 AM by Mark Magnuson

Insm1.GFP gene targeting strategy

