

Igsf9b Cas9-KO Strategy

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Project Overview



Project Name

Igsf9b

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Igsf9b* gene. The schematic diagram is as follows:



- The *Igsf9b* gene has 4 transcripts. According to the structure of *Igsf9b* gene, exon2-exon12 of *Igsf9b-202* (ENSMUST00000133213.2) transcript is recommended as the knockout region. The region contains 1567bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Igsf9b* gene. The brief process is as follows: CRISPR/Cas9 system

Notice

- The *Igsf9b* gene is located on the Chr9. If the knockout mice are crossed with other mice strains to obtain double gene positive homozygous mouse offspring, please avoid the two genes on the same chromosome.
- This Strategy is designed based on genetic information in existing databases. Due to the complexity of biological processes, all risk of the gene knockout on gene transcription, RNA splicing and protein translation cannot be predicted at the existing technology level.

Gene information (NCBI)

Igsf9b immunoglobulin superfamily, member 9B [*Mus musculus* (house mouse)]

Gene ID: 235086, updated on 21-Nov-2019

Summary



Official Symbol	Igsf9b provided by MGI
Official Full Name	immunoglobulin superfamily, member 9B provided by MGI
Primary source	MGI:MGI:2685354
See related	Ensembl:ENSMUSG00000034275
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	Gm508; AI414108; AI854107; mKIAA1030
Expression	Broad expression in cerebellum adult (RPKM 6.7), cortex adult (RPKM 5.5) and 19 other tissues See more
Orthologs	human all

Genomic context



Location: 9; 9 A4

Exon count: 25

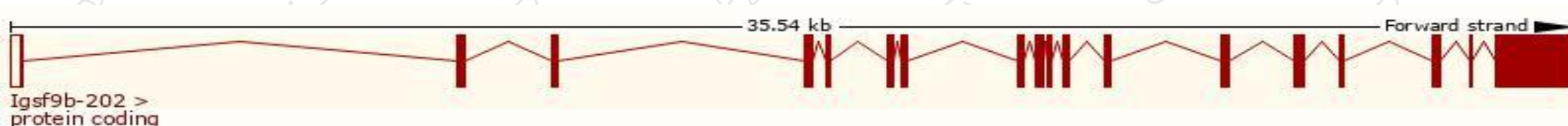
See Igsf9b in [Genome Data Viewer](#)

Transcript information (Ensembl)

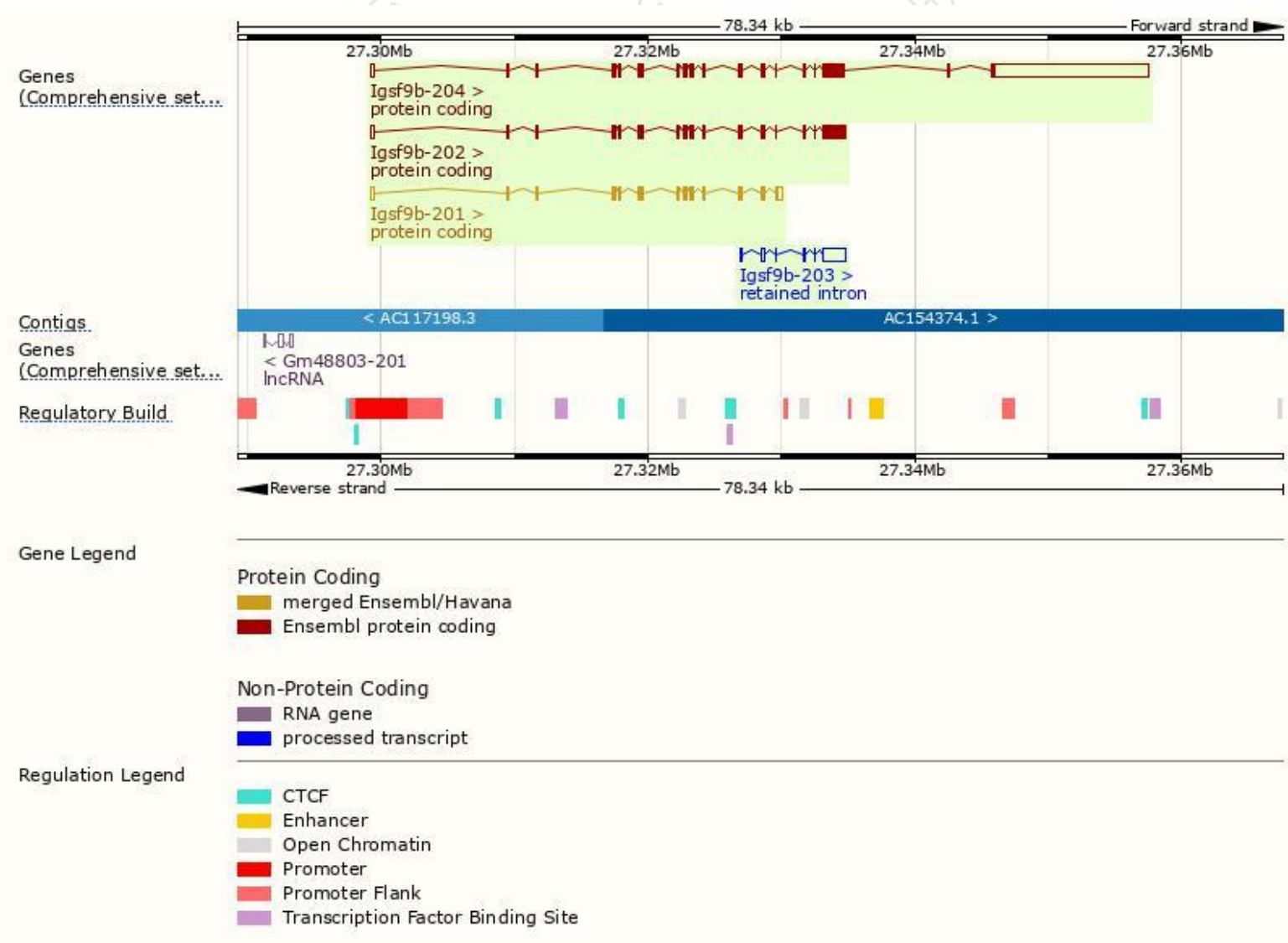
The gene has 4 transcripts, all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Igsf9b-202	ENSMUST00000133213.2	4239	1328aa	Protein coding	CCDS52746	E9PZ19	TSL:5 GENCODE basic
Igsf9b-204	ENSMUST00000214357.1	16144	1441aa	Protein coding	-	A0A1L1SR84	TSL:5 GENCODE basic APPRIS P1
Igsf9b-201	ENSMUST00000115247.7	2857	722aa	Protein coding	-	D3Z169	TSL:1 GENCODE basic
Igsf9b-203	ENSMUST00000214187.1	2288	No protein	Retained intron	-	-	TSL:1

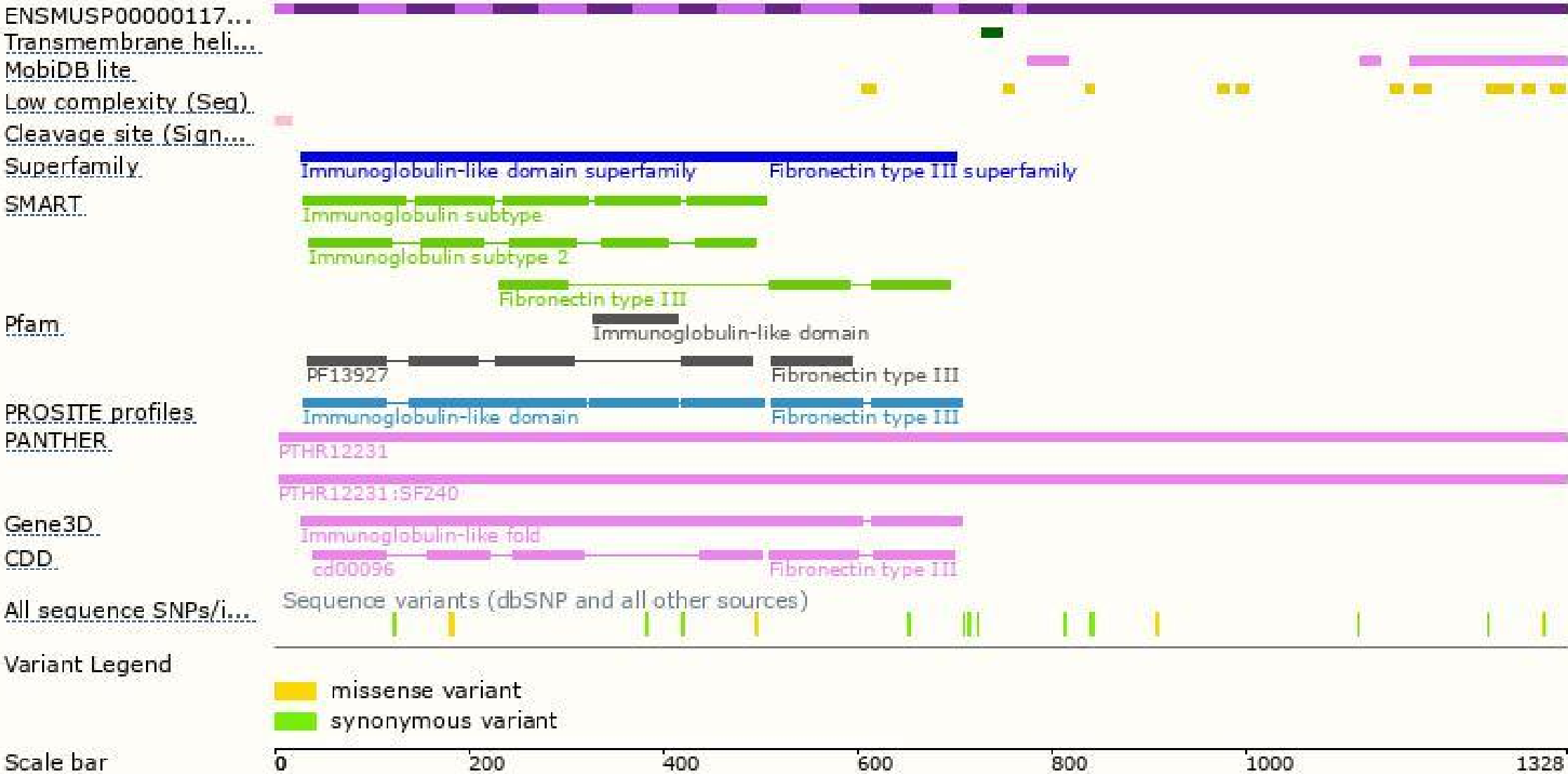
The strategy is based on the design of *Igsf9b-202* transcript, The transcription is shown below



Genomic location distribution



Protein domain



If you have any questions, you are welcome to inquire.

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