

***Serpinb11* Cas9-KO Strategy**

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Reviewer:

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Project Overview

Project Name

Serpinb11

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Serpinb11* gene. The schematic diagram is as follows:



- The *Serpinb11* gene has 2 transcripts. According to the structure of *Serpinb11* gene, exon3-exon5 of *Serpinb11-201* (ENSMUST00000027566.2) transcript is recommended as the knockout region. The region contains 298bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Serpinb11* gene. The brief process is as follows: CRISPR/Cas9 sys

- The *Serpinb11* gene is located on the Chr1. 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.
- Transcript 202 CDS 3' incomplete the influences is unknown.
- 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)

Serpina11 serine (or cysteine) peptidase inhibitor, clade B (ovalbumin), member 11 [Mus musculus (house mouse)]

Gene ID: 66957, updated on 2-Feb-2019

Summary



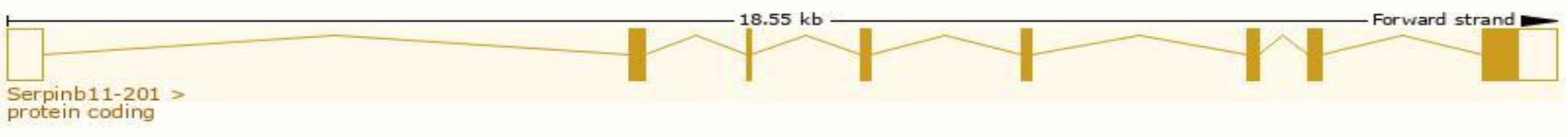
Official Symbol	Serpina11 provided by MGI
Official Full Name	serine (or cysteine) peptidase inhibitor, clade B (ovalbumin), member 11 provided by MGI
Primary source	MGI:MGI:1914207
See related	Ensembl:ENSMUSG00000026327
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	2310046M08Rik, AU015399
Expression	Low expression observed in reference dataset See more
Orthologs	human all

Transcript information (Ensembl)

The gene has 2 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Serpinb11-201	ENSMUST00000027566.2	2084	388aa	Protein coding	CCDS15218	Q9CQV3	TSL:1 GENCODE basic APPRIS P1
Serpinb11-202	ENSMUST00000191425.6	707	152aa	Protein coding	-	A0A087WST6	CDS 3' incomplete TSL:5

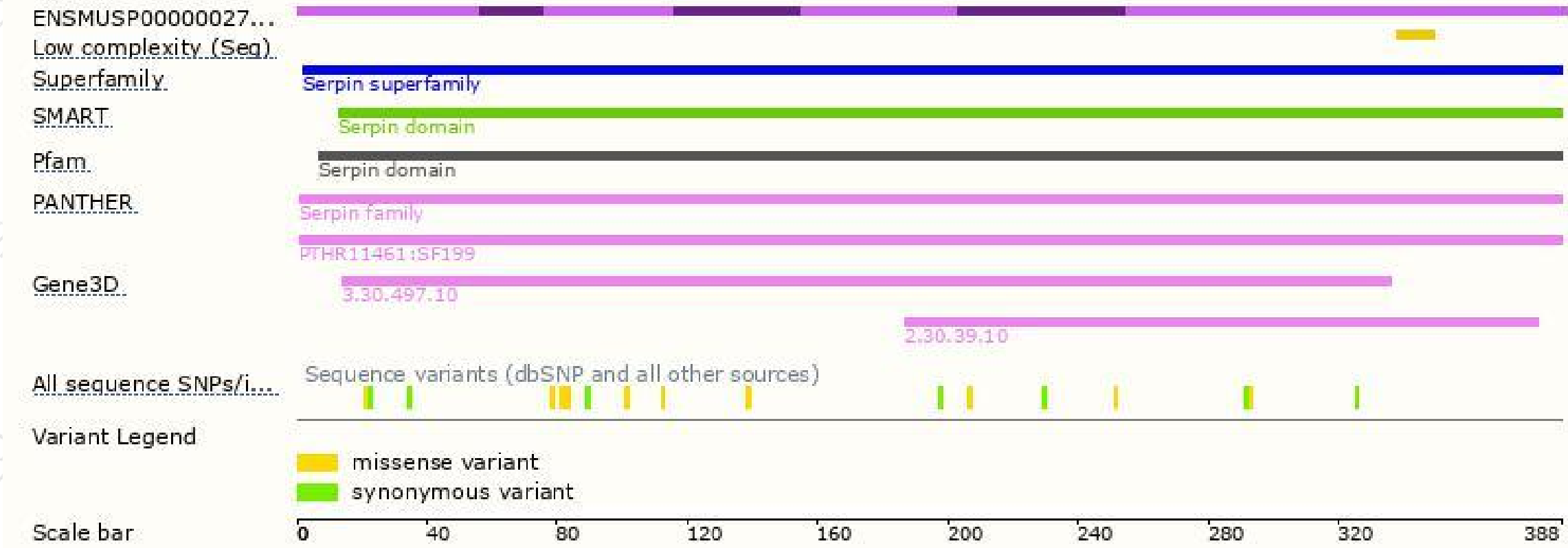
The strategy is based on the design of *Serpinb11-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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