

***Fer1l5* Cas9-KO Strategy**

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Project Overview

Project Name

Fer1l5

Project type

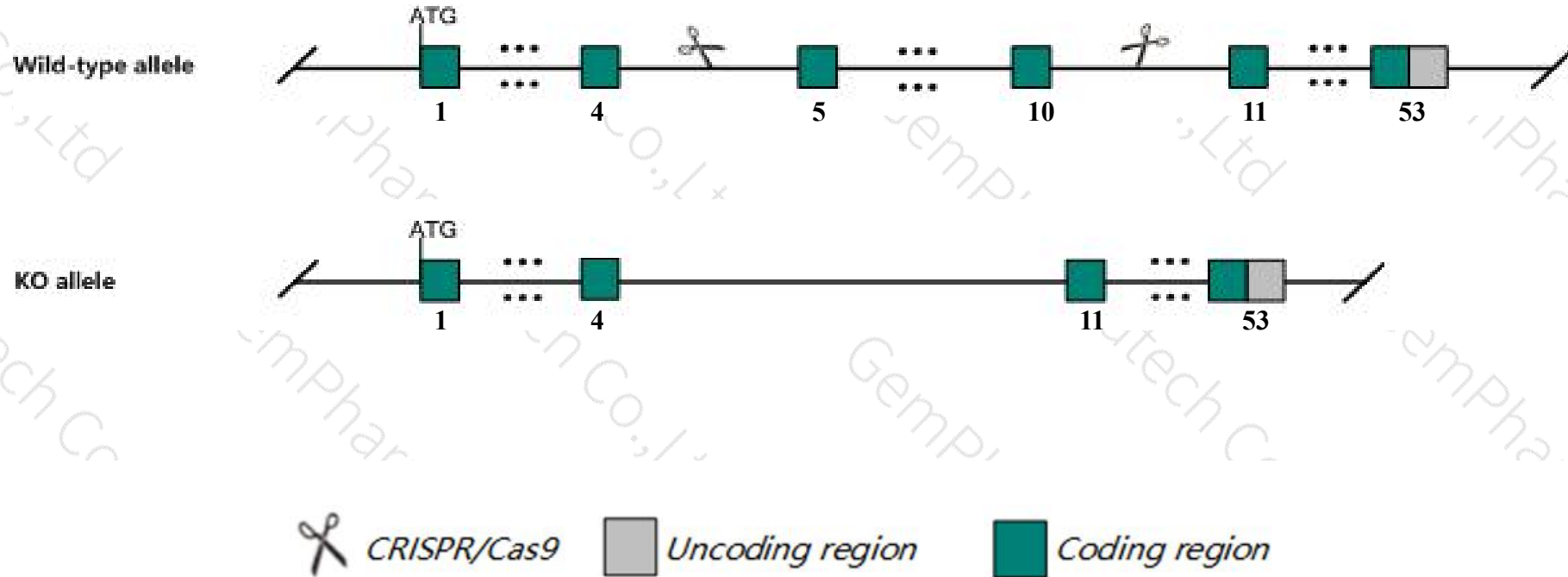
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Fer1l5* gene. The schematic diagram is as follows:



- The *Fer1l5* gene has 3 transcripts. According to the structure of *Fer1l5* gene, exon5-exon10 of *Fer1l5-202* (ENSMUST00000179162.6) transcript is recommended as the knockout region. The region contains 439bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Fer1l5* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Fer1l5* 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.
- 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)

Fer1l5 fer-1-like 5 (C. elegans) [*Mus musculus* (house mouse)]

Gene ID: 100534273, updated on 12-Nov-2019

Summary

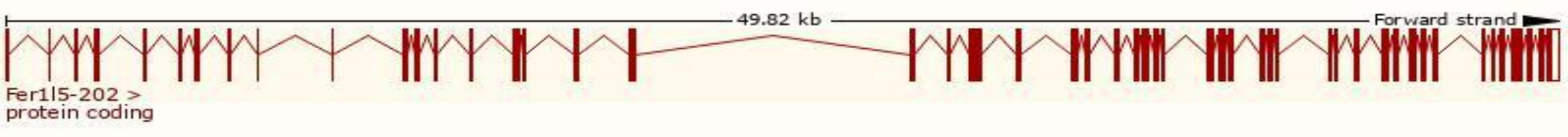
Official Symbol	Fer1l5 provided by MGI
Official Full Name	fer-1-like 5 (C. elegans) provided by MGI
Primary source	MGI:MGI:3616091
See related	Ensembl:ENSMUSG00000037432
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	4930533C12Rik
Expression	Biased expression in testis adult (RPKM 20.5) and thymus adult (RPKM 1.0) See more
Orthologs	human all

Transcript information (Ensembl)

The gene has 3 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Fer1l5-202	ENSMUST00000179162.6	6315	2038aa	Protein coding	CCDS78562	P0DM40	TSL:1 GENCODE basic APPRIS P1
Fer1l5-201	ENSMUST00000140452.3	1723	209aa	Nonsense mediated decay	-	A0A0J9YV09	CDS 5' incomplete TSL:1
Fer1l5-203	ENSMUST00000202030.1	1420	261aa	Nonsense mediated decay	-	A0A0J9YTZ2	CDS 5' incomplete TSL:1

The strategy is based on the design of *Fer1l5-202* transcript,The transcription is shown below



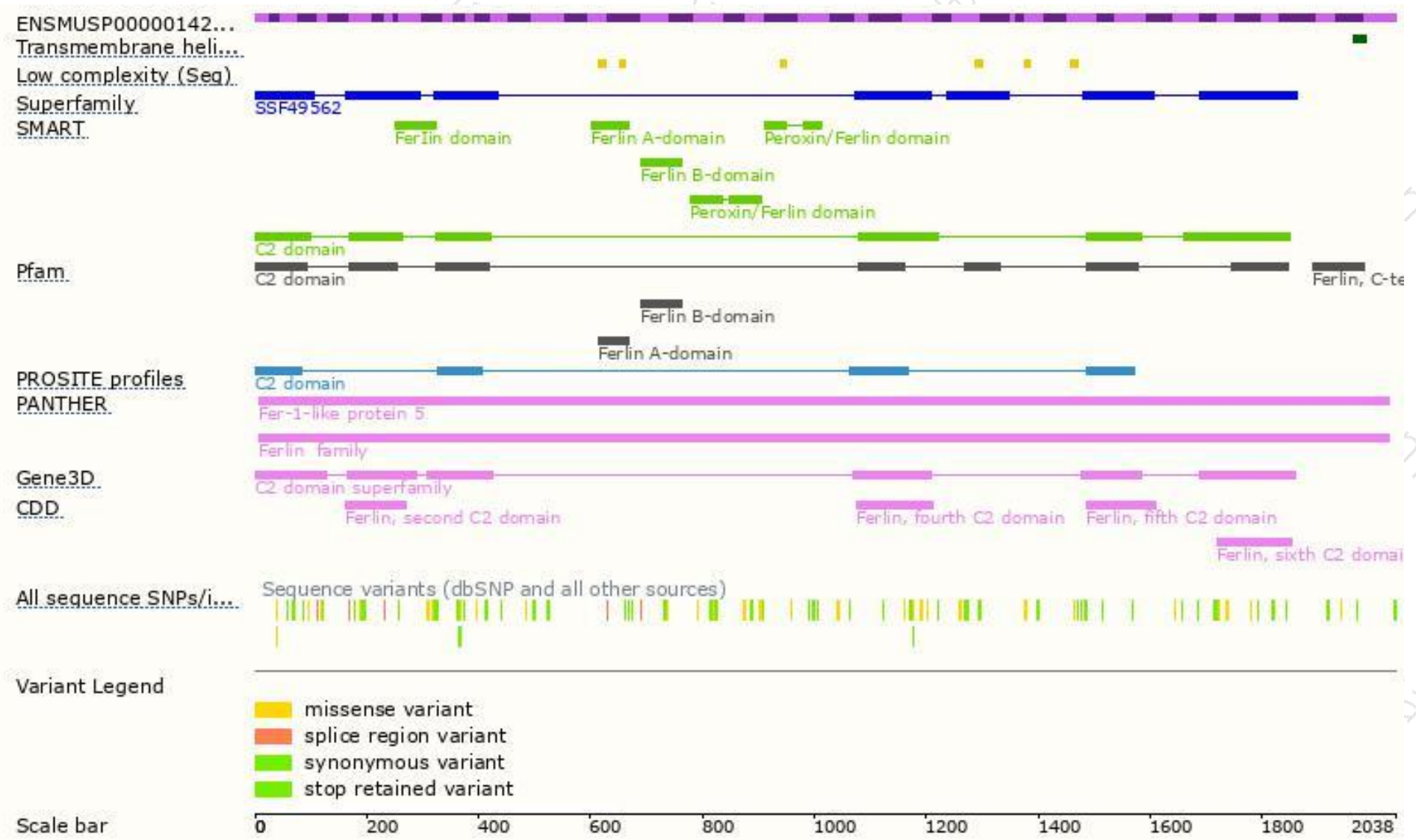
Genomic location distribution



Protein domain



集萃药康
GemPharmatech



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

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