

Trim65 Cas9-KO Strategy

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Project Overview

Project Name

Trim65

Project type

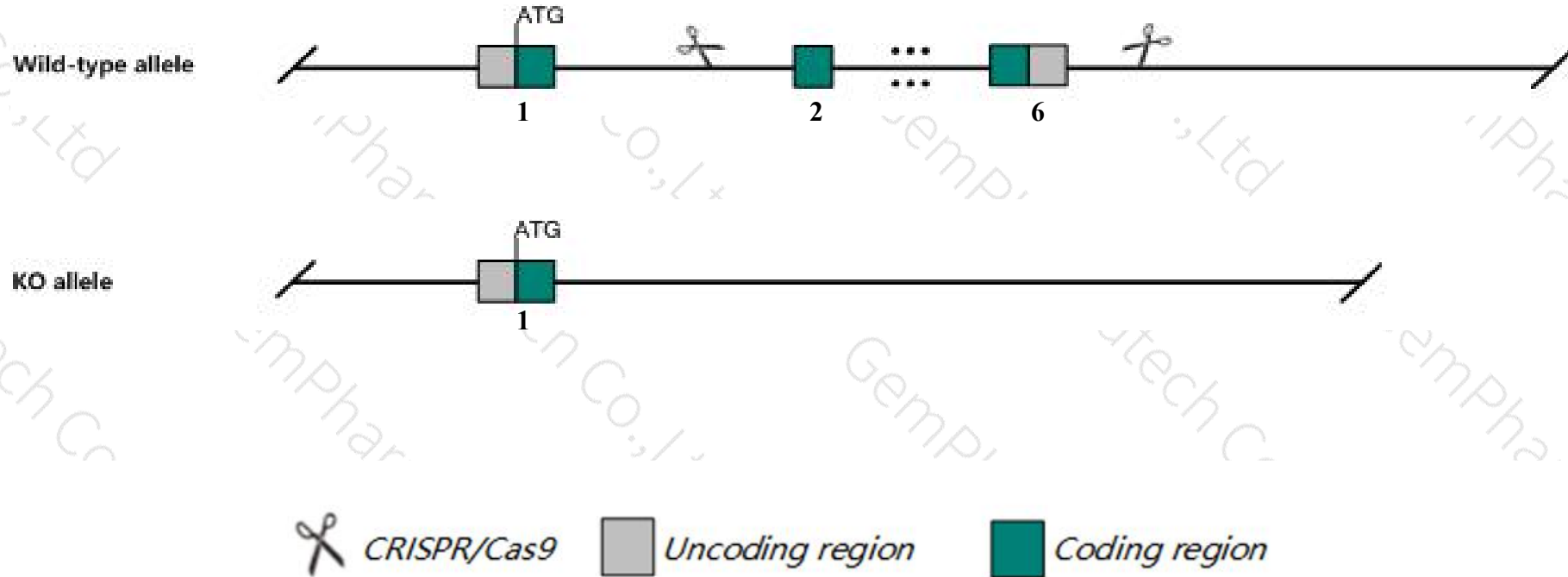
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Trim65* gene. The schematic diagram is as follows:



- The *Trim65* gene has 3 transcripts. According to the structure of *Trim65* gene, exon2-exon6 of *Trim65-201* (ENSMUST00000067632.3) transcript is recommended as the knockout region. The region contains most of the coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Trim65* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Trim65* gene is located on the Chr11. 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 overlaps with the transcription section of Trim47-204 and destroys the transcription of Trim47-204 at the same time.
- 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)

Trim65 tripartite motif-containing 65 [Mus musculus (house mouse)]

Gene ID: 338364, updated on 31-Jan-2019

Summary



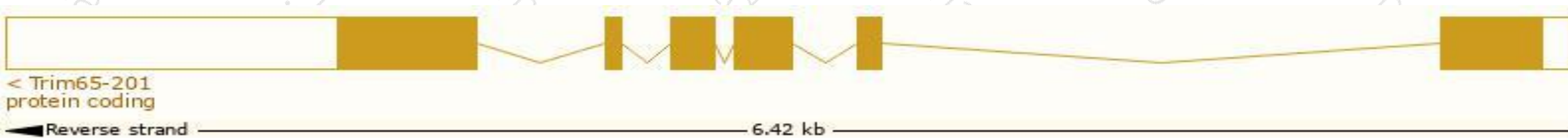
Official Symbol	Trim65 provided by MGI
Official Full Name	tripartite motif-containing 65 provided by MGI
Primary source	MGI:MGI:2442815
See related	Ensembl:ENSMUSG00000054517
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	4732463G12Rik
Expression	Ubiquitous expression in spleen adult (RPKM 8.3), ovary adult (RPKM 6.0) and 27 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

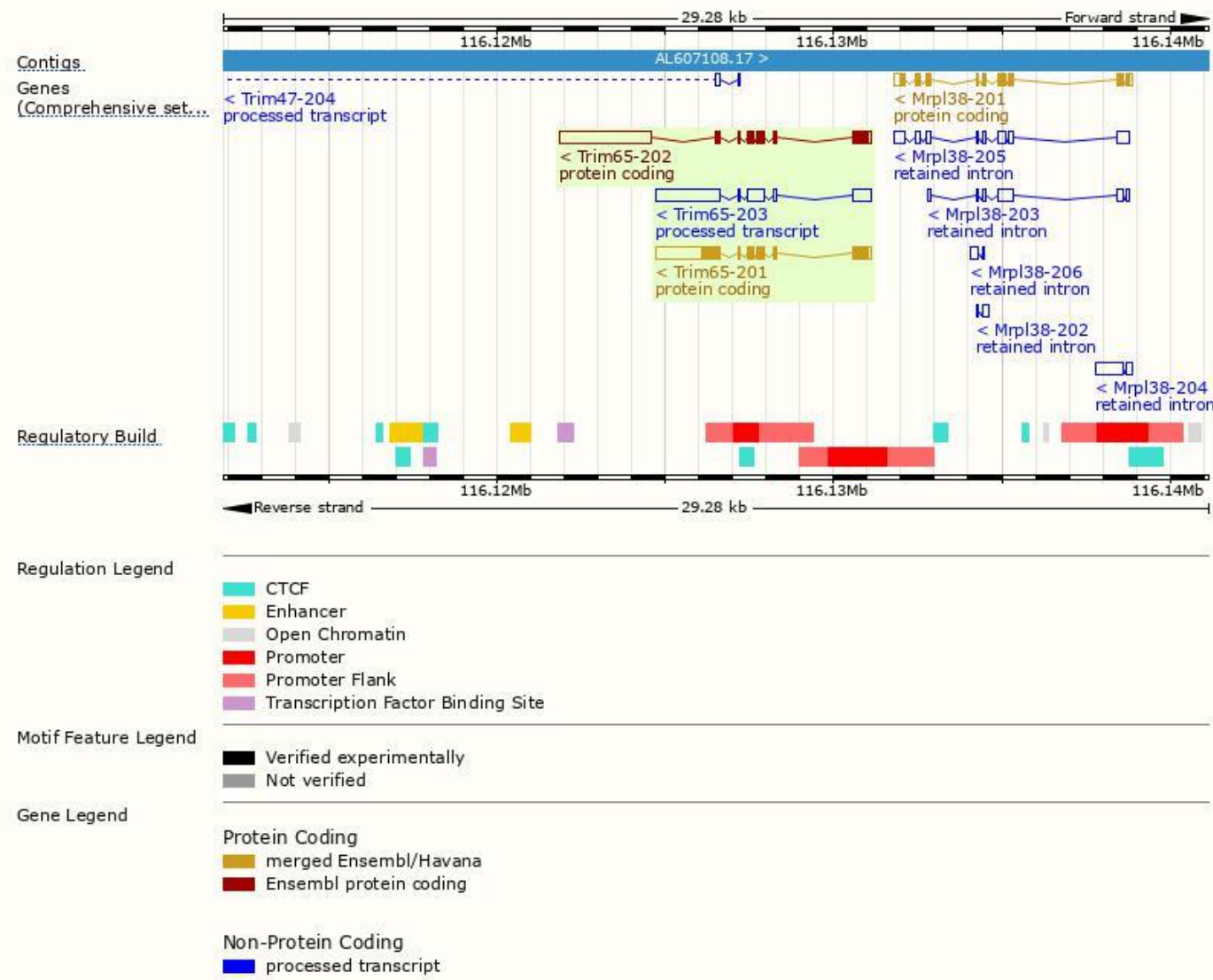
The gene has 3 transcripts, all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Trim65-201	ENSMUST00000067632.3	3048	522aa	Protein coding	CCDS48981	Q8BFW4	TSL:1 GENCODE basic APPRIS P1
Trim65-202	ENSMUST00000106440.8	4040	396aa	Protein coding	-	Q8BFW4	TSL:5 GENCODE basic
Trim65-203	ENSMUST00000154061.1	3132	No protein	Processed transcript	-	-	TSL:2

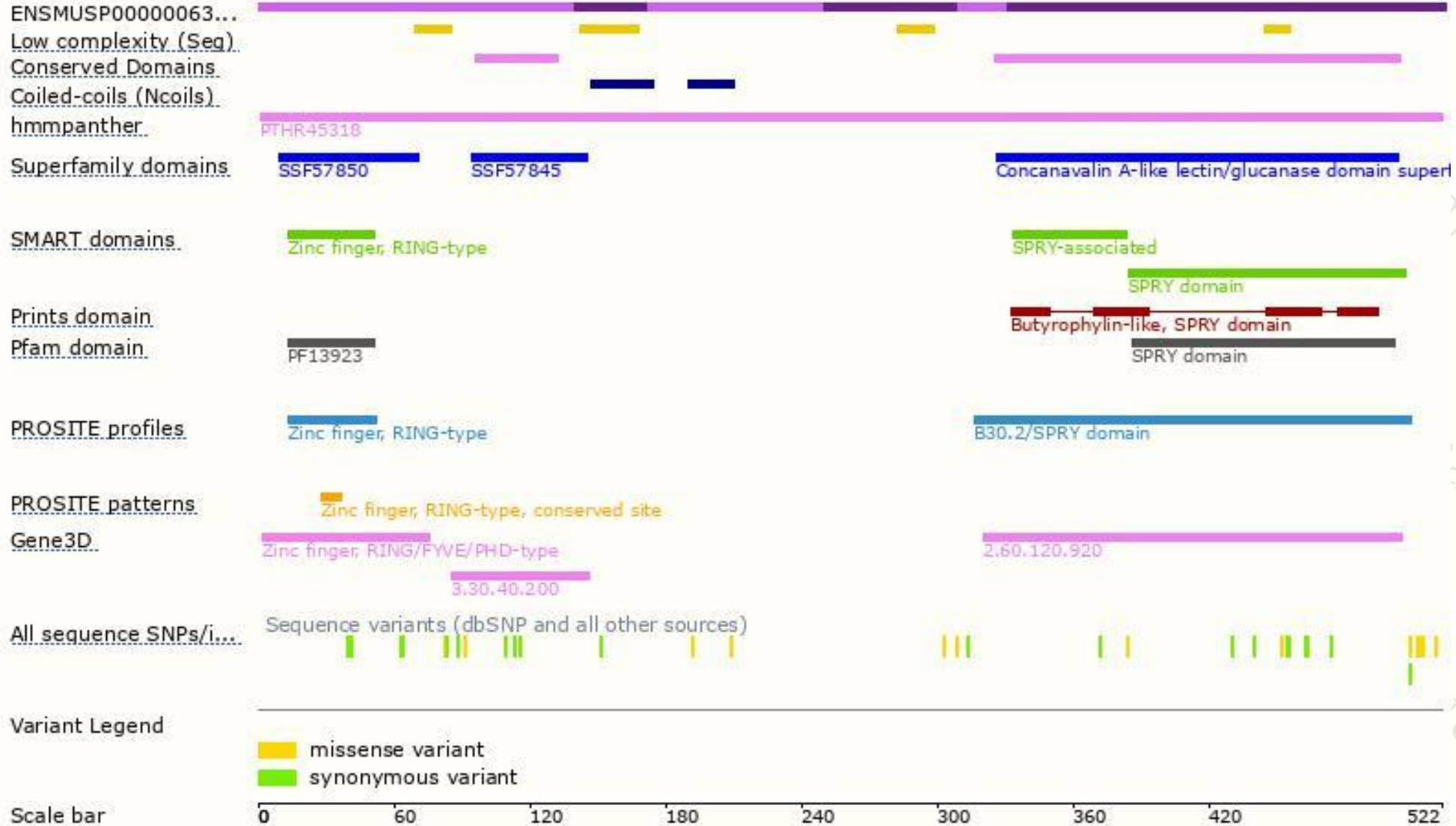
The strategy is based on the design of *Trim65-201* transcript, The transcription is shown below



Genomic location distribution



Protein domain



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

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