

Rnf185 Cas9-KO Strategy

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Design Date: **2019-9-30**

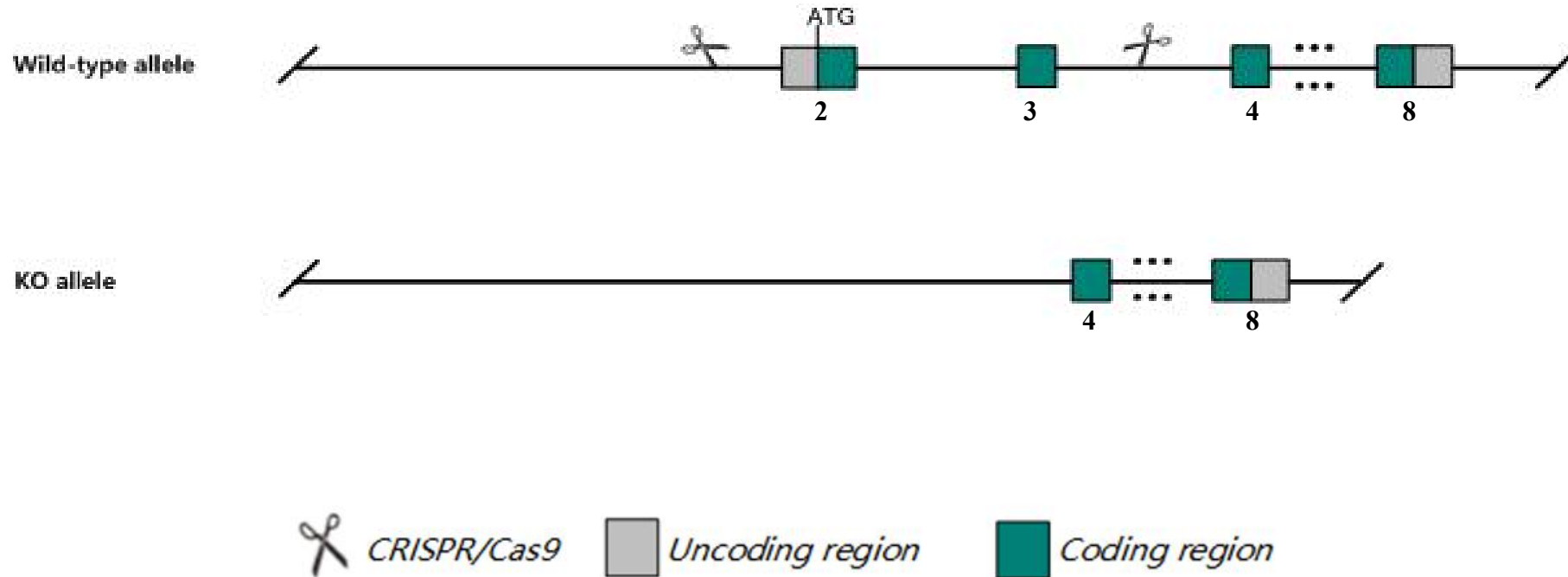
Project Name	<i>Rnf185</i>
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Project type	Cas9-KO
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Strain background	C57BL/6JGpt
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Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Rnf185* gene. The schematic diagram is as follows:



The *Rnf185* gene has 3 transcripts. According to the structure of *Rnf185* gene, exon2-exon3 of *Rnf185-201* (ENSMUST00000064364.2) transcript is recommended as the knockout region. The region contains start codon ATG. Knock out the region will result in disruption of protein function.

In this project we use CRISPR/Cas9 technology to modify *Rnf185* gene. The brief process is as follows: CRISPR/Cas9 system

The *Rnf185* 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 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.

Rnf185 ring finger protein 185 [Mus musculus (house mouse)]

Gene ID: 193670, updated on 31-Jan-2019

Summary



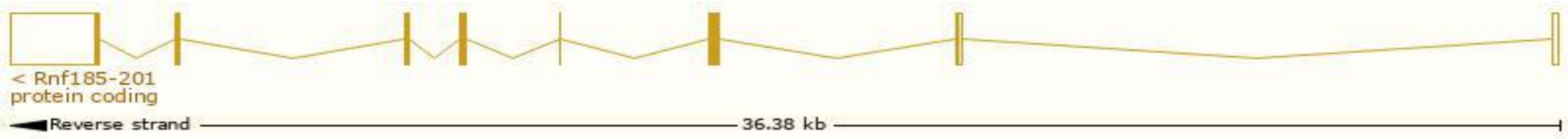
Official Symbol	Rnf185 provided by MGI
Official Full Name	ring finger protein 185 provided by MGI
Primary source	MGI:MGI:1922078
See related	Ensembl:ENSMUSG000000020448
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Expression	Ubiquitous expression in testis adult (RPKM 16.3), kidney adult (RPKM 15.0) and 28 other tissues See more
Orthologs	human all

Transcript information Ensembl

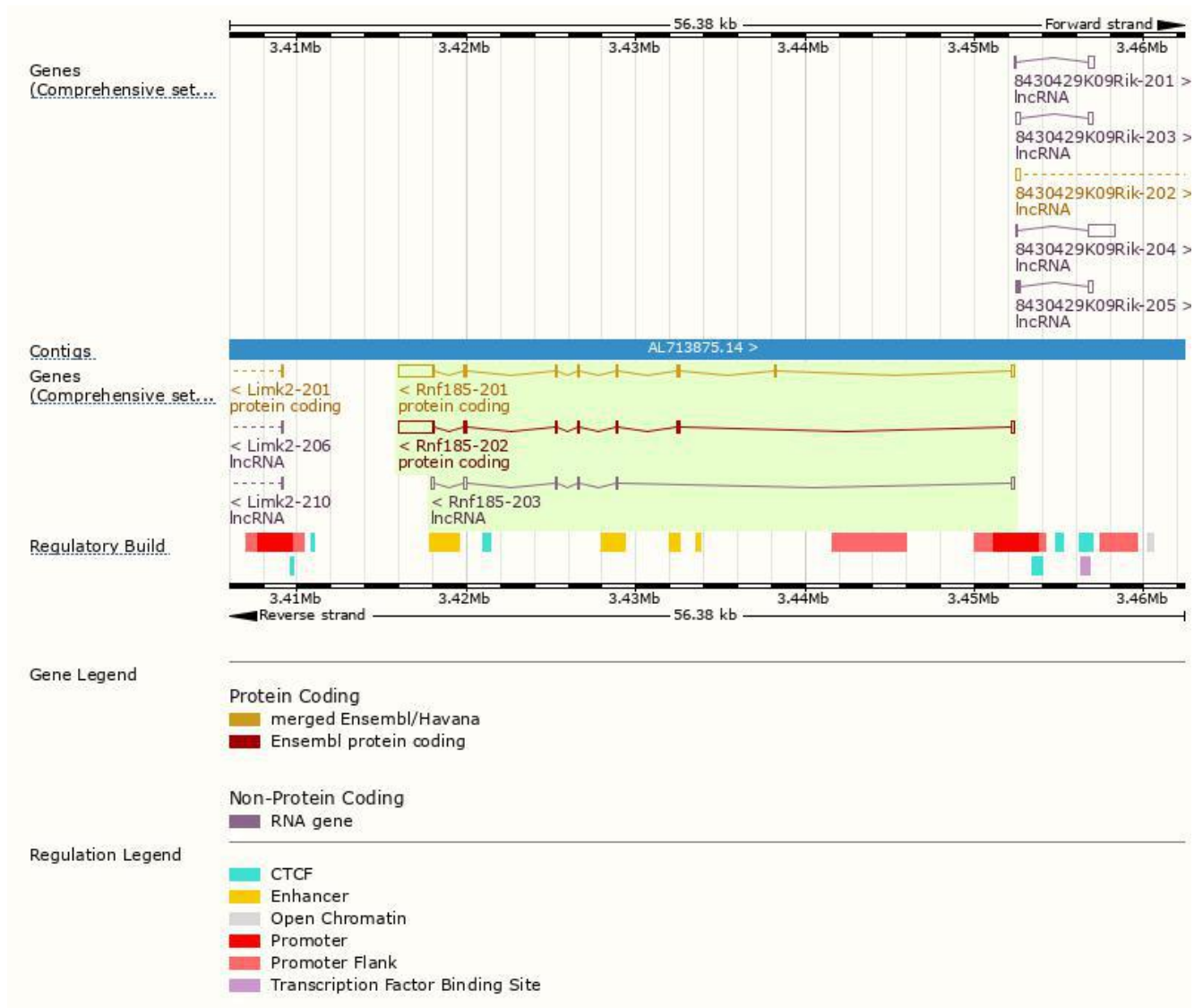
The gene has 3 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Rnf185-201	ENSMUST00000064364.2	2906	228aa	Protein coding	CCDS24361	Q91YT2	TSL:1 GENCODE basic
Rnf185-202	ENSMUST00000077078.11	2787	192aa	Protein coding	CCDS70127	Q91YT2	TSL:1 GENCODE basic APPRIS P1
Rnf185-203	ENSMUST00000144055.1	643	No protein	lncRNA	-	-	TSL:3

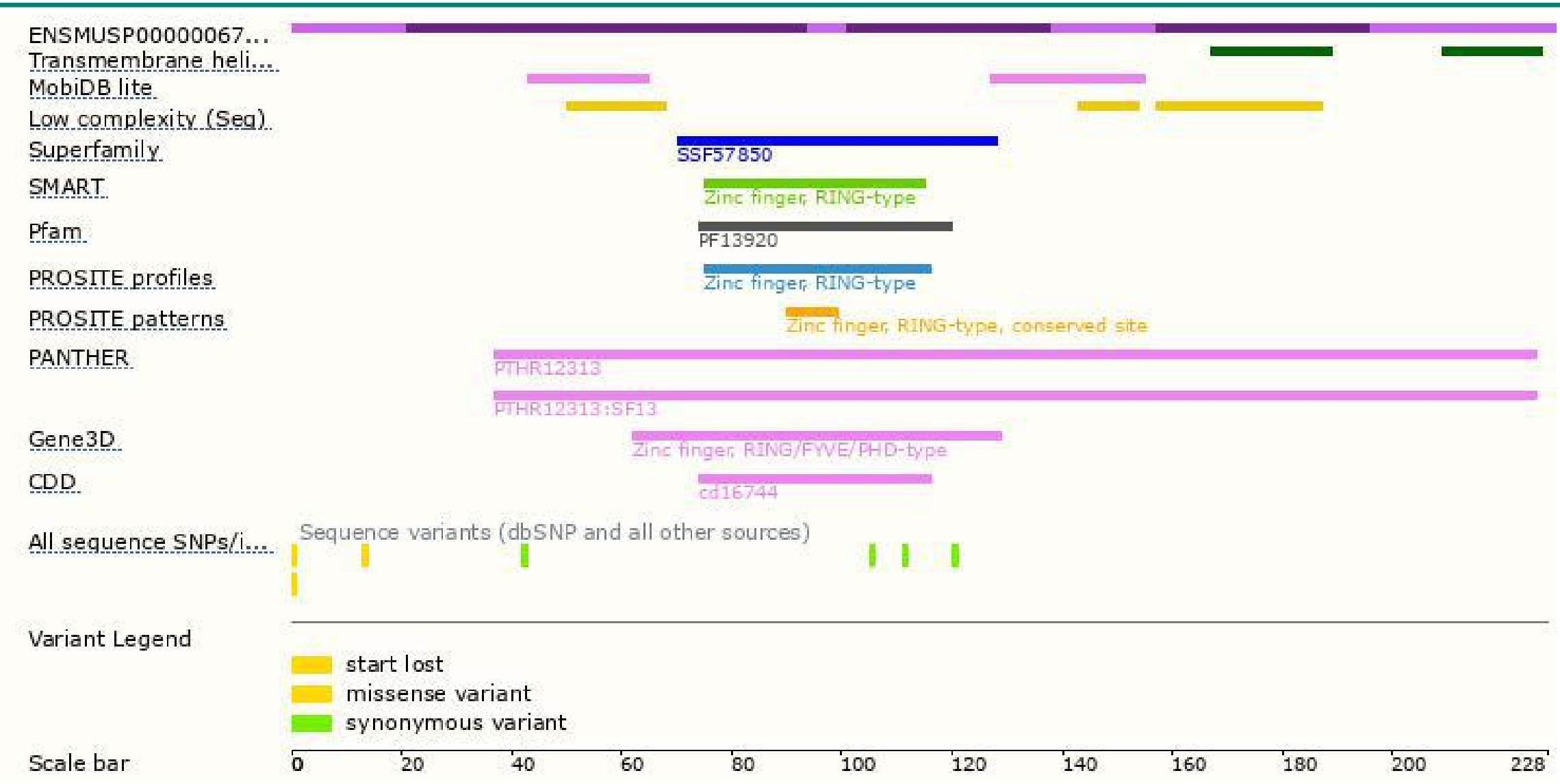
The strategy is based on the design of *Rnf185-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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