

Iba57 Cas9-KO Strategy

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Project Overview

Project Name

Iba57

Project type

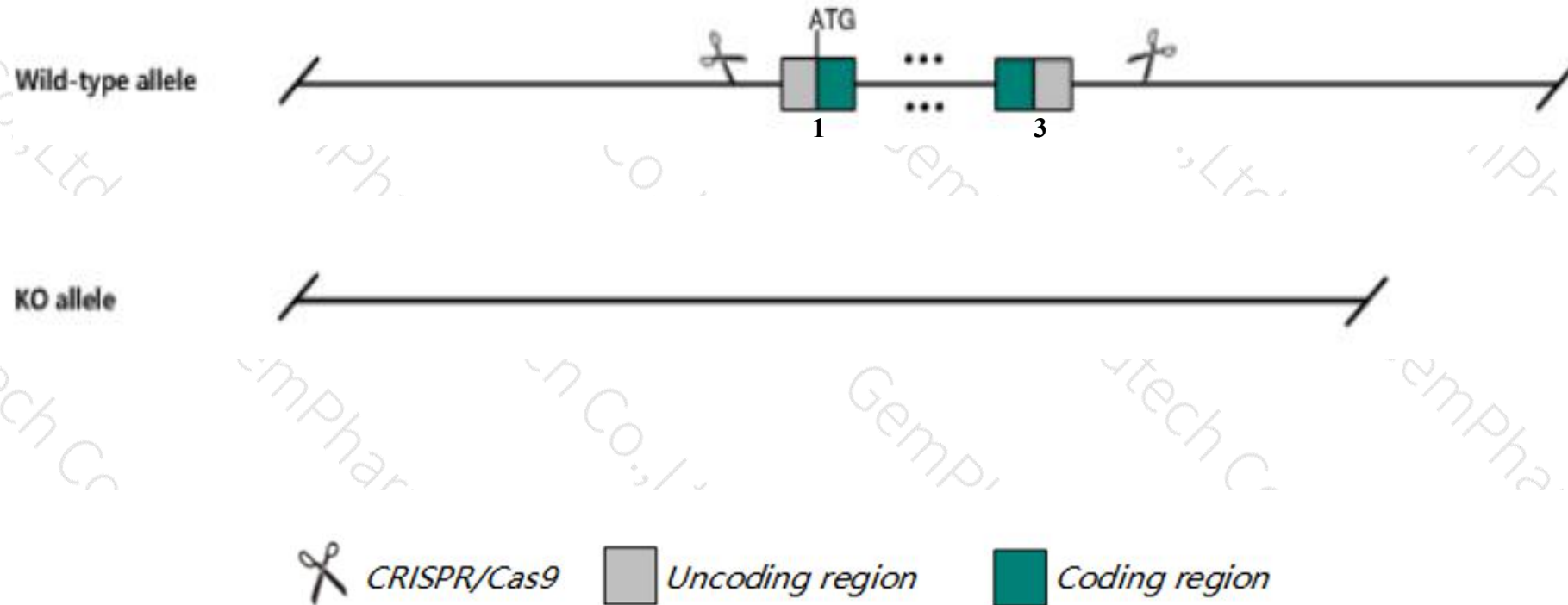
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Iba57* gene. The schematic diagram is as follows:



- The *Iba57* gene has 3 transcripts. According to the structure of *Iba57* gene, exon1-exon3 of *Iba57-201* (ENSMUST00000054523.5) transcript is recommended as the knockout region. The region contains all 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 *Iba57* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Iba57* 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.

Gene information (NCBI)

Iba57 IBA57 homolog, iron-sulfur cluster assembly [Mus musculus (house mouse)]

Gene ID: 216792, updated on 13-Mar-2020

Summary



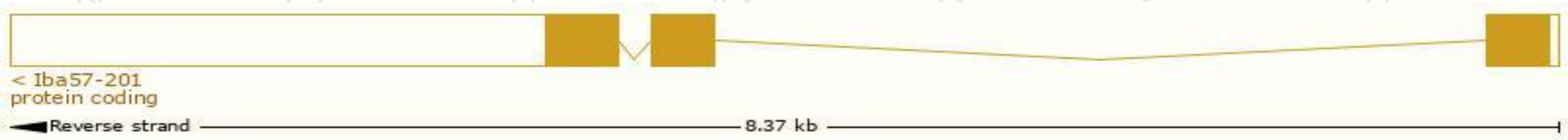
Official Symbol	Iba57 provided by MGI
Official Full Name	IBA57 homolog, iron-sulfur cluster assembly provided by MGI
Primary source	MGI:MGI:3041174
See related	Ensembl:ENSMUSG00000049287
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	4930543L23Rik, A230051G13Rik, C1orf69
Expression	Ubiquitous expression in adrenal adult (RPKM 6.5), liver E14.5 (RPKM 4.8) and 28 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

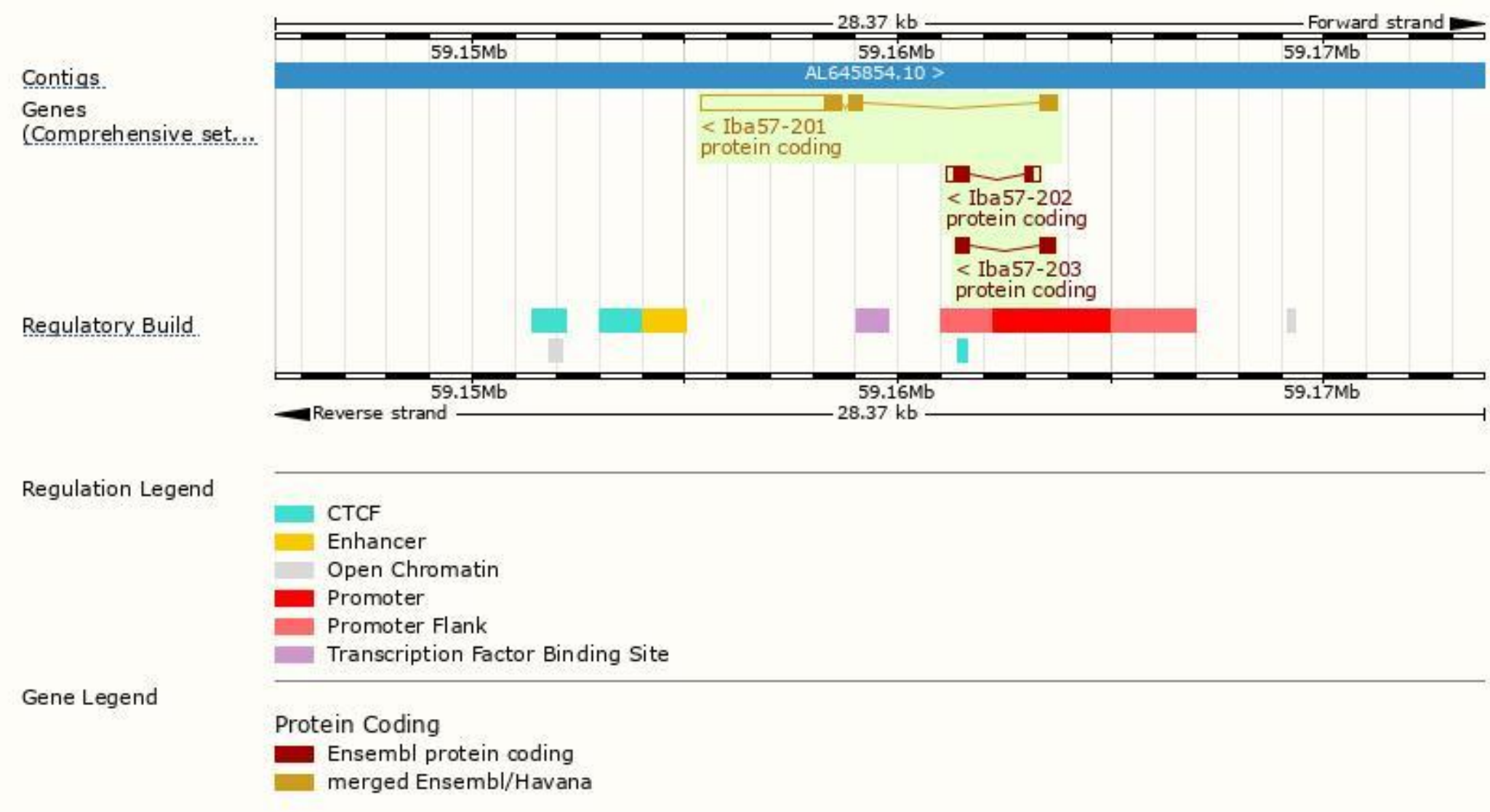
The gene has 3 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Iba57-201	ENSMUST00000054523.5	4021	358aa	Protein coding	CCDS24758	Q8CAK1	TSL:1 GENCODE basic APPRIS P1
Iba57-202	ENSMUST00000069631.2	864	172aa	Protein coding	-	J3J581	TSL:1 GENCODE basic
Iba57-203	ENSMUST00000137433.1	654	215aa	Protein coding	-	B2FDE8	CDS 3' incomplete TSL:3

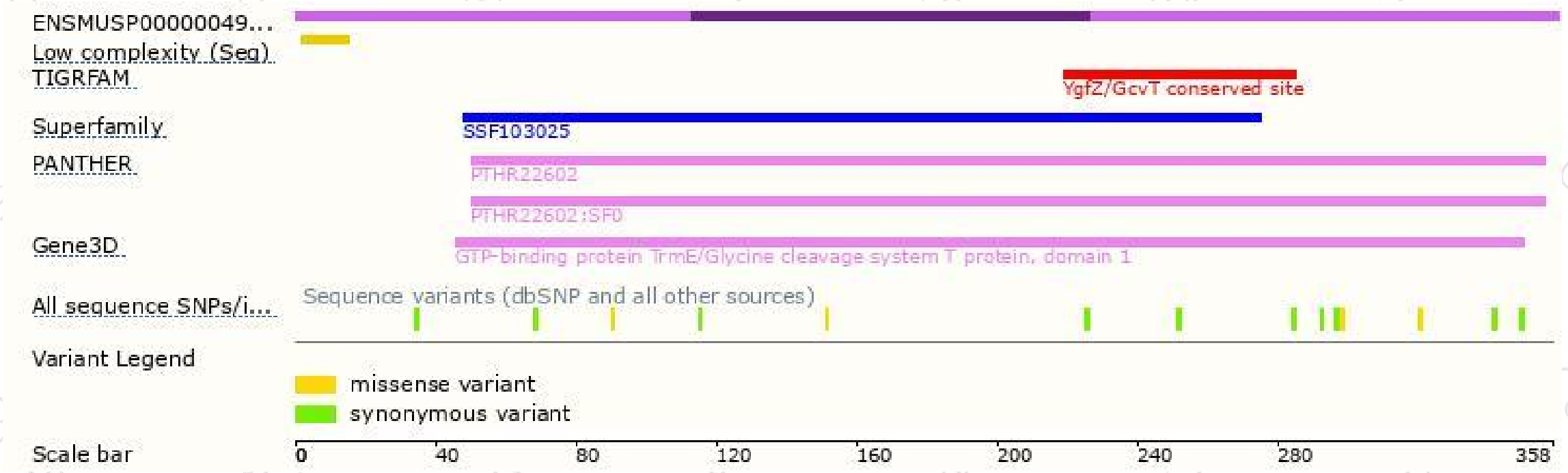
The strategy is based on the design of *Iba57-201* transcript,the transcription is shown below:



Genomic location distribution



Protein domain



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

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