

Eif3f Cas9-KO Strategy

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Project Overview

Project Name

Eif3f

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Eif3f* gene. The schematic diagram is as follows:



- The *Eif3f* gene has 3 transcripts. According to the structure of *Eif3f* gene, exon2-exon4 of *Eif3f*-201 (ENSMUST00000033342.6) transcript is recommended as the knockout region. The region contains 289bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Eif3f* gene. The brief process is as follows: CRISPR/Cas9 system v

- The *Eif3f* gene is located on the Chr7. 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)

Eif3f eukaryotic translation initiation factor 3, subunit F [Mus musculus (house mouse)]

Gene ID: 66085, updated on 31-Jan-2019

Summary



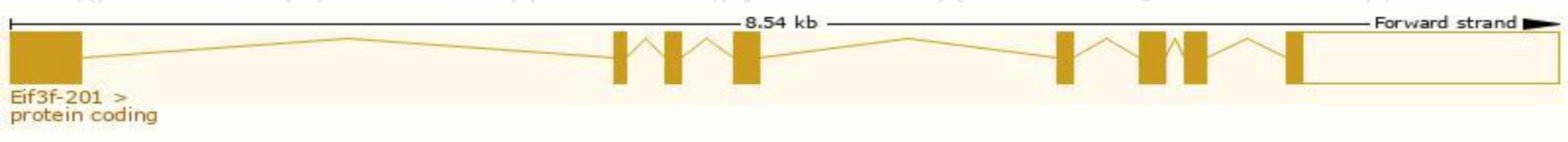
Official Symbol	Eif3f provided by MGI
Official Full Name	eukaryotic translation initiation factor 3, subunit F provided by MGI
Primary source	MGI:MGI:1913335
See related	Ensembl:ENSMUSG00000031029
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	0610037M02Rik, AA409853, Eif3s5
Expression	Broad expression in adrenal adult (RPKM 509.7), stomach adult (RPKM 285.6) and 28 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

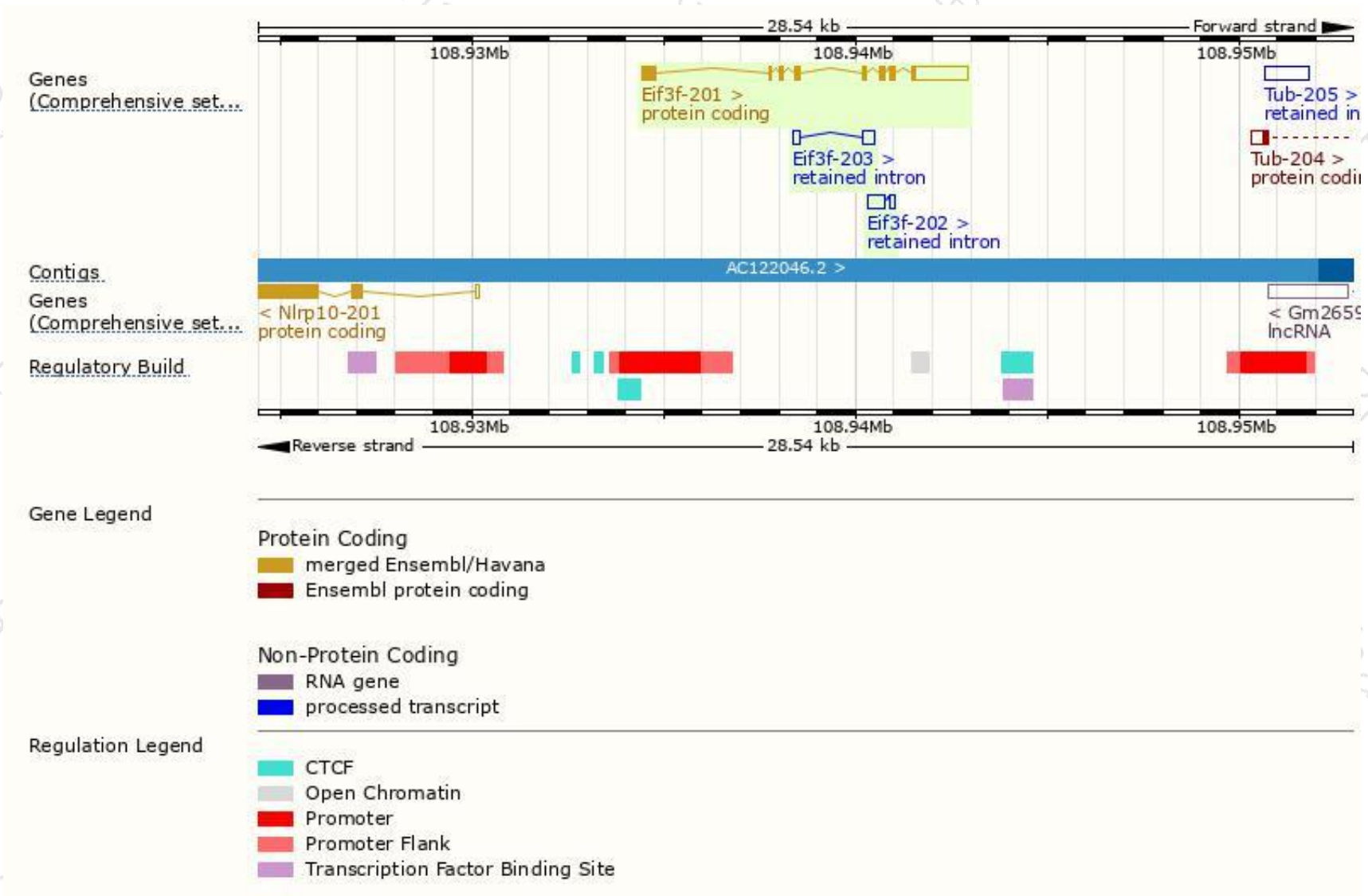
The gene has 3 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Eif3f-201	ENSMUST00000033342.6	2514	361aa	Protein coding	CCDS21731	Q9DCH4	TSL:1 GENCODE basic APPRIS P1
Eif3f-202	ENSMUST00000147369.1	588	No protein	Retained intron	-	-	TSL:3
Eif3f-203	ENSMUST00000153596.1	439	No protein	Retained intron	-	-	TSL:1

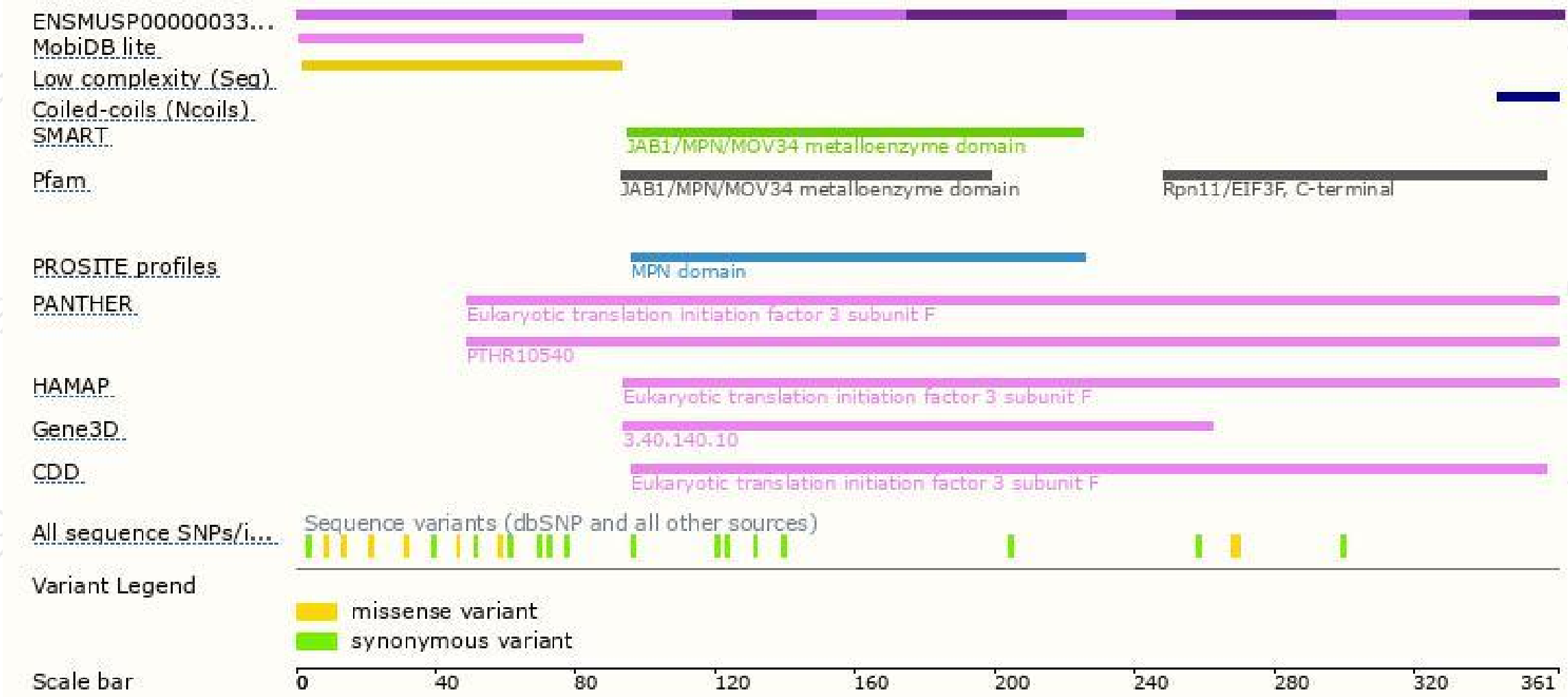
The strategy is based on the design of *Eif3f-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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