

Tfip11 Cas9-KO Strategy

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Project Overview

Project Name

Tfip11

Project type

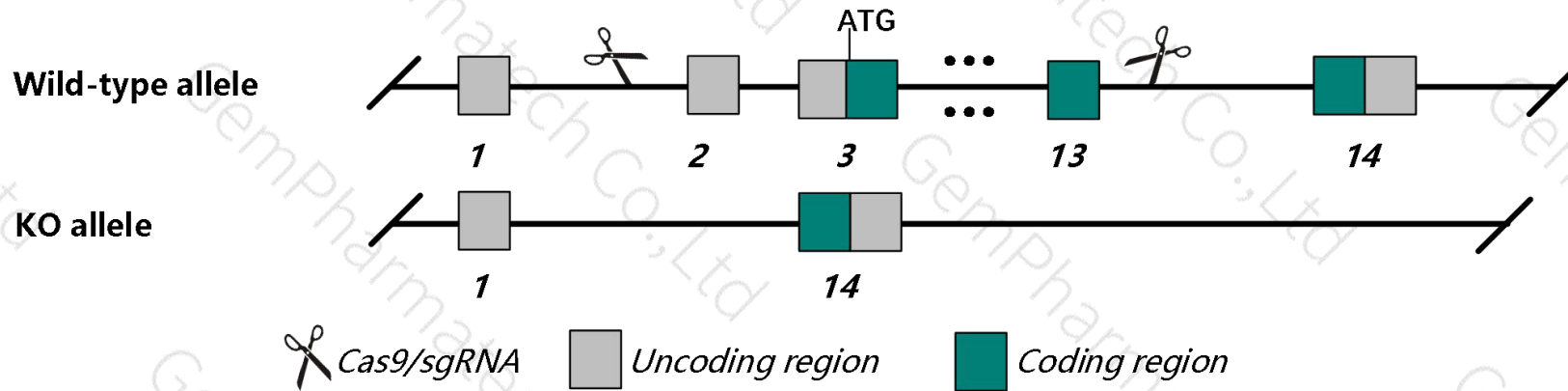
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Tfip11* gene. The schematic diagram is as follows:



- The *Tfip11* gene has 4 transcripts. According to the structure of *Tfip11* gene, exon2-exon13 of *Tfip11-201* (ENSMUST00000031288.13) 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 *Tfip11* gene. The brief process is as follows: CRISPR/Cas9 system

- The knockout region is near to the N-terminal of *Hps4* gene and C-terminal of *Srrd* gene, this strategy may influence the regulatory function of the N-terminal of *Hps4* gene and C-terminal of *Srrd* gene.
- The *Tfip11* gene is located on the Chr5. 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)

Tfip11 tuftelin interacting protein 11 [*Mus musculus* (house mouse)]

Gene ID: 54723, updated on 12-Aug-2019

Summary

- Official Symbol** Tfip11 provided by [MGI](#)
- Official Full Name** tuftelin interacting protein 11 provided by [MGI](#)
- Primary source** [MGI:MGI:1930075](#)
- See related** [Ensembl:ENSMUSG00000029345](#)
- Gene type** protein coding
- RefSeq status** PROVISIONAL
- Organism** [Mus musculus](#)
- Lineage** Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
- Also known as** Srr1; TIP33; Tip39; AF097181; AW046167; 2810002G02Rik
- Expression** Ubiquitous expression in ovary adult (RPKM 25.3), thymus adult (RPKM 19.0) and 28 other tissues [See more](#)
- Orthologs** [human](#) [all](#)

Genomic context

Location: 5; 5 F See Tfip11 in [Genome Data Viewer](#)

Exon count: 14

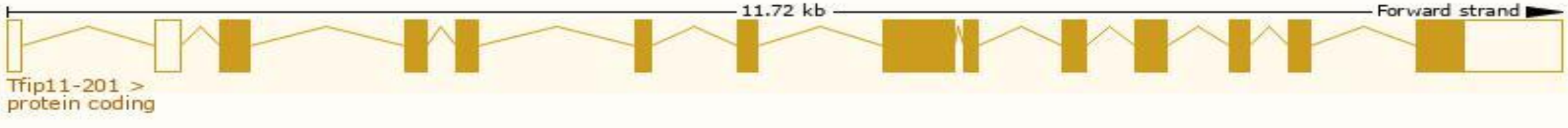
Annotation release	Status	Assembly	Chr	Location
108	current	GRCm38.p6 (GCF_000001635.26)	5	NC_000071.6 (112326369..112338073)
Build 37.2	previous assembly	MGSCv37 (GCF_000001635.18)	5	NC_000071.5 (112755389..112767093)

Transcript information (Ensembl)

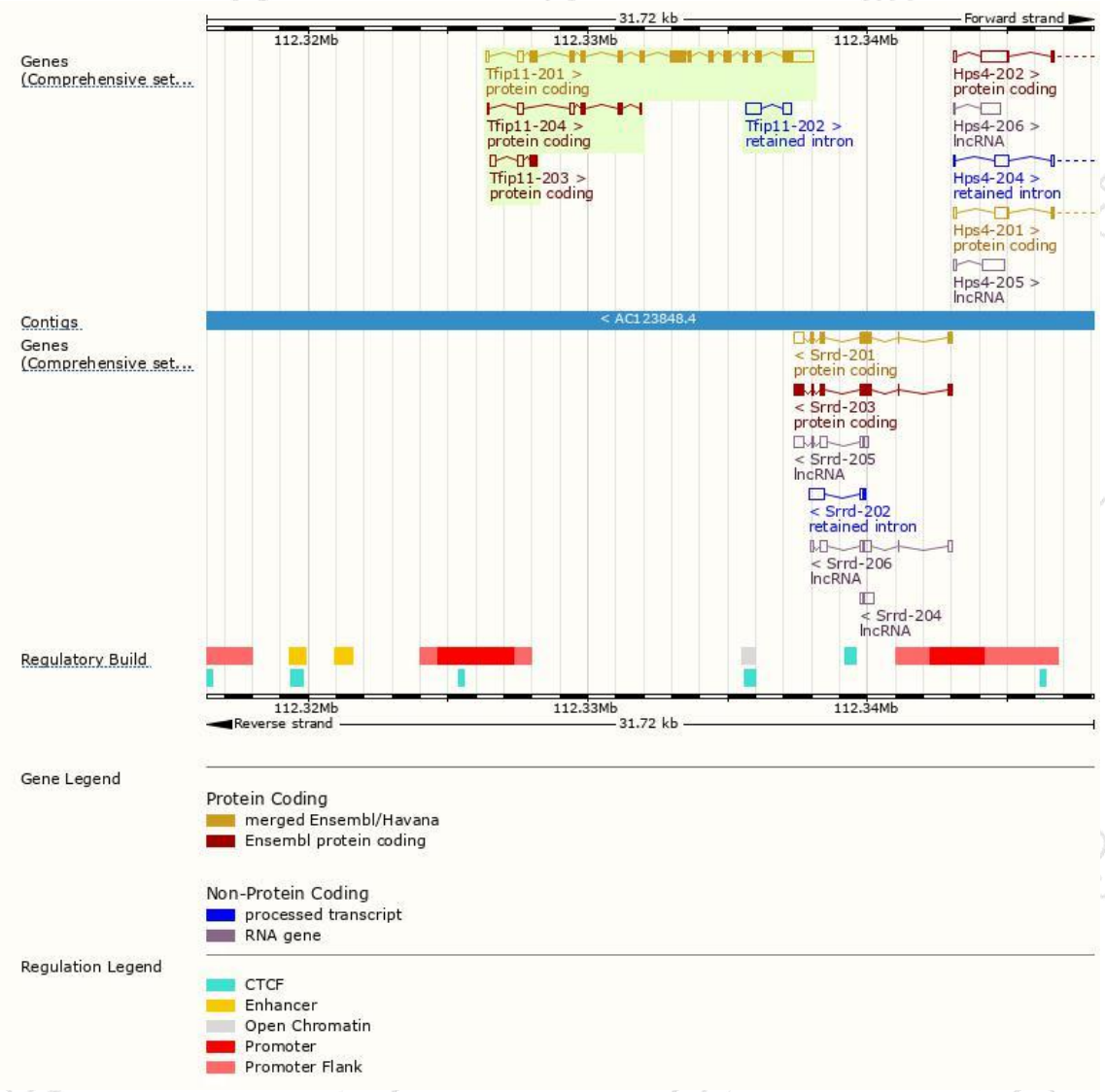
The gene has 4 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Tfip11-201	ENSMUST00000031288.13	3560	838aa	Protein coding	CCDS19539	Q3TTV6 Q9ERA6	TSL:1 GENCODE basic APPRIS P1
Tfip11-204	ENSMUST00000198238.4	726	93aa	Protein coding	-	A0A0G2JEN8	CDS 3' incomplete TSL:3
Tfip11-203	ENSMUST00000129528.1	634	70aa	Protein coding	-	D3YWC8	CDS 3' incomplete TSL:3
Tfip11-202	ENSMUST00000126736.1	827	No protein	Retained intron	-	-	TSL:2

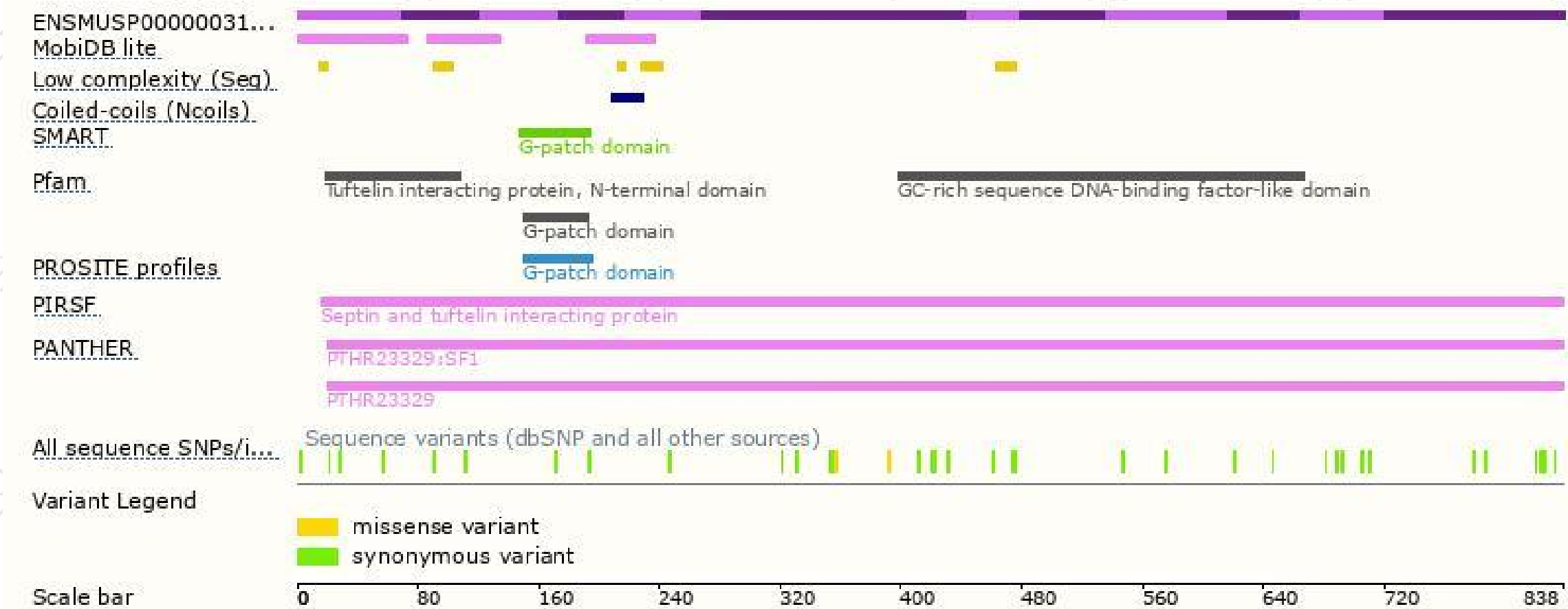
The strategy is based on the design of *Tfip11-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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