

Zfp41 Cas9-KO Strategy

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Reviewer

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Project Overview

Project Name

Zfp41

Project type

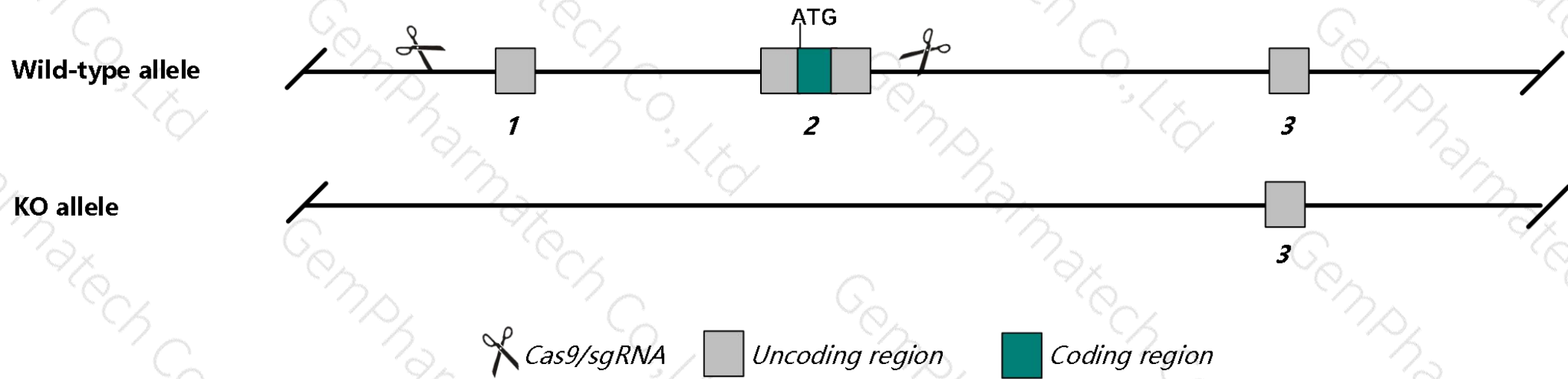
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Zfp41* gene. The schematic diagram is as follows:



- The *Zfp41* gene has 4 transcripts. According to the structure of *Zfp41* gene, exon1-exon2 of *Zfp41-201* (ENSMUST00000054555.9) 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 *Zfp41* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Zfp41* gene is located on the Chr15. 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.

Zfp41 zinc finger protein 41 [*Mus musculus* (house mouse)]

Gene ID: 22701, updated on 10-Oct-2019

Summary

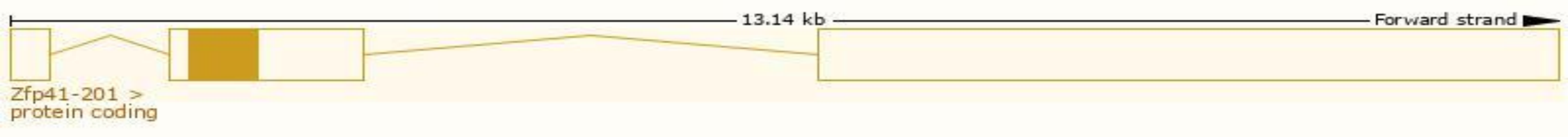
Official Symbol	Zfp41 provided by MGI
Official Full Name	zinc finger protein 41 provided by MGI
Primary source	MGI:MGI:99186
See related	Ensembl:ENSMUSG00000047003
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	Zfp-41; CTfin92
Expression	Broad expression in whole brain E14.5 (RPKM 18.9), CNS E11.5 (RPKM 18.4) and 24 other tissues See more
Orthologs	human all

Transcript information Ensembl

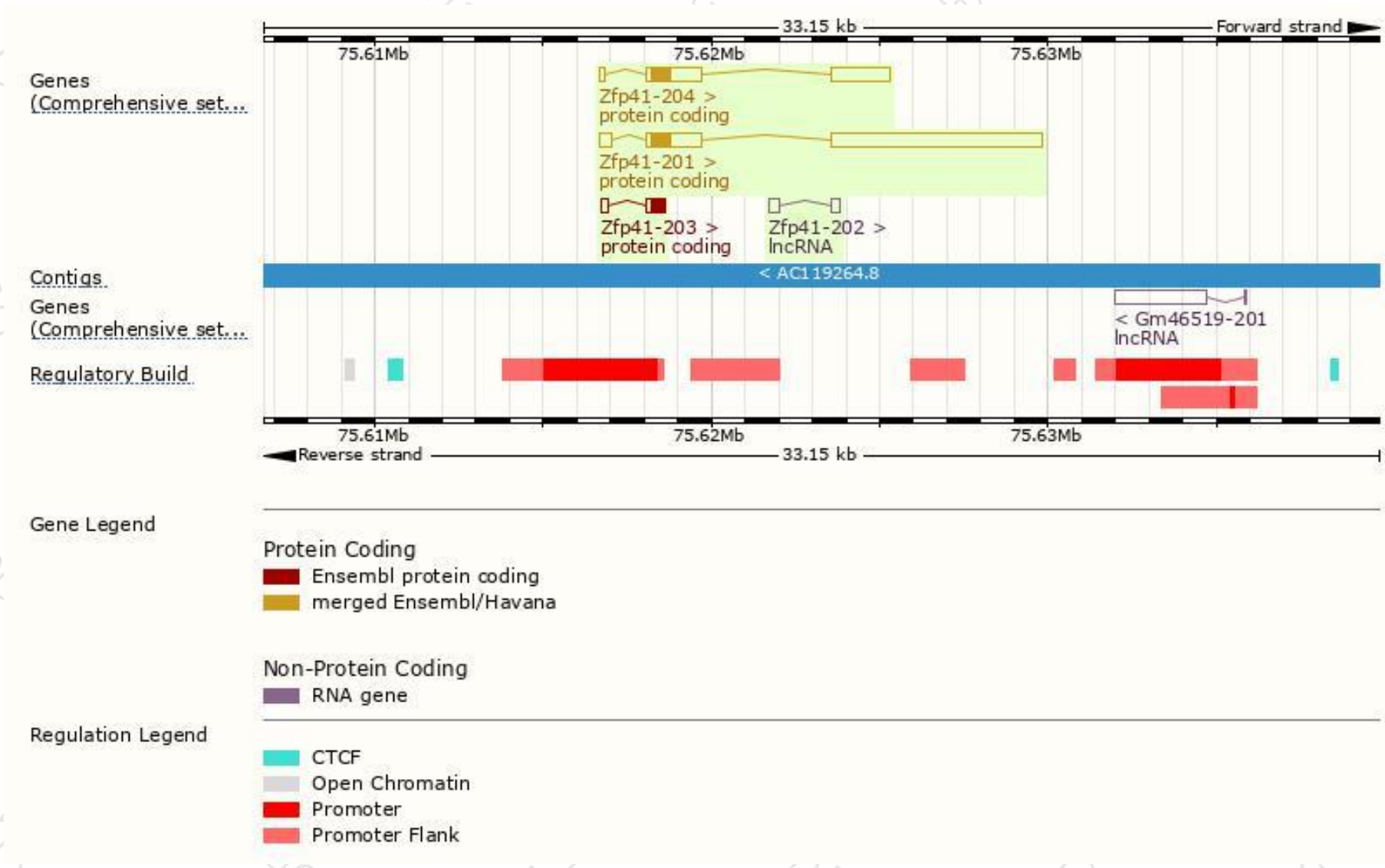
The gene has 4 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Zfp41-201	ENSMUST00000054555.9	8270	198aa	Protein coding	CCDS37108	Q02526	TSL:1 GENCODE basic APPRIS P1
Zfp41-204	ENSMUST00000161785.7	3540	198aa	Protein coding	CCDS37108	Q02526	TSL:1 GENCODE basic APPRIS P1
Zfp41-203	ENSMUST00000161752.1	807	148aa	Protein coding	-	E0CX66	CDS 3' incomplete TSL:3
Zfp41-202	ENSMUST00000161555.1	600	No protein	lncRNA	-	-	TSL:3

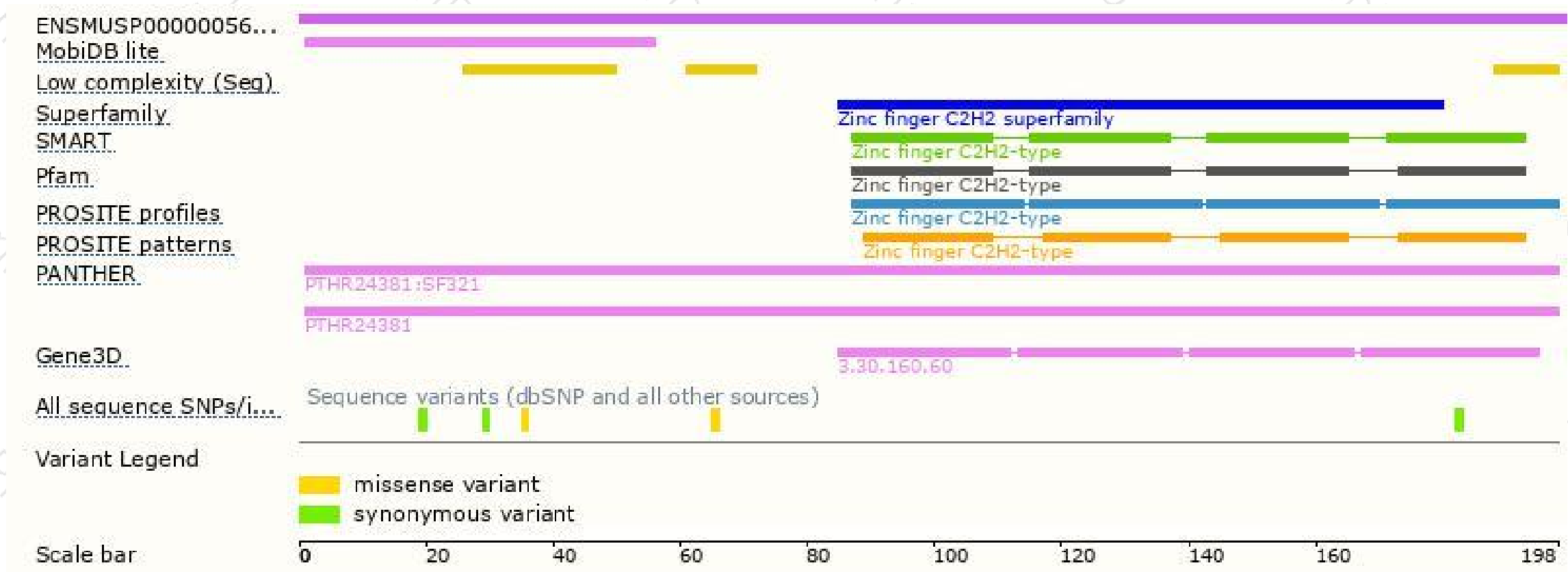
The strategy is based on the design of *Zfp41-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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