

Tmem132d Cas9-KO Strategy

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Reviewer:

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Project Overview

Project Name

Tmem132d

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Tmem132d* gene. The schematic diagram is as follows:



- The *Tmem132d* gene has 3 transcripts. According to the structure of *Tmem132d* gene, exon2 of *Tmem132d-201* (ENSMUST00000044441.7) transcript is recommended as the knockout region. The region contains 886bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Tmem132d* gene. The brief process is as follows: CRISPR/Cas9 sy

- The *Tmem132d* 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)

Tmem132d transmembrane protein 132D [Mus musculus (house mouse)]

Gene ID: 243274, updated on 19-Mar-2019

Summary



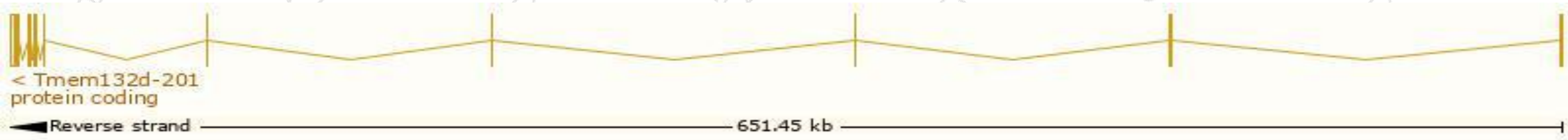
Official Symbol	Tmem132d provided by MGI
Official Full Name	transmembrane protein 132D provided by MGI
Primary source	MGI:MGI:3044963
See related	Ensembl:ENSMUSG00000034310
Gene type	protein coding
RefSeq status	PROVISIONAL
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	C630028F04Rik
Expression	Biased expression in cortex adult (RPKM 4.3), frontal lobe adult (RPKM 3.8) and 6 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

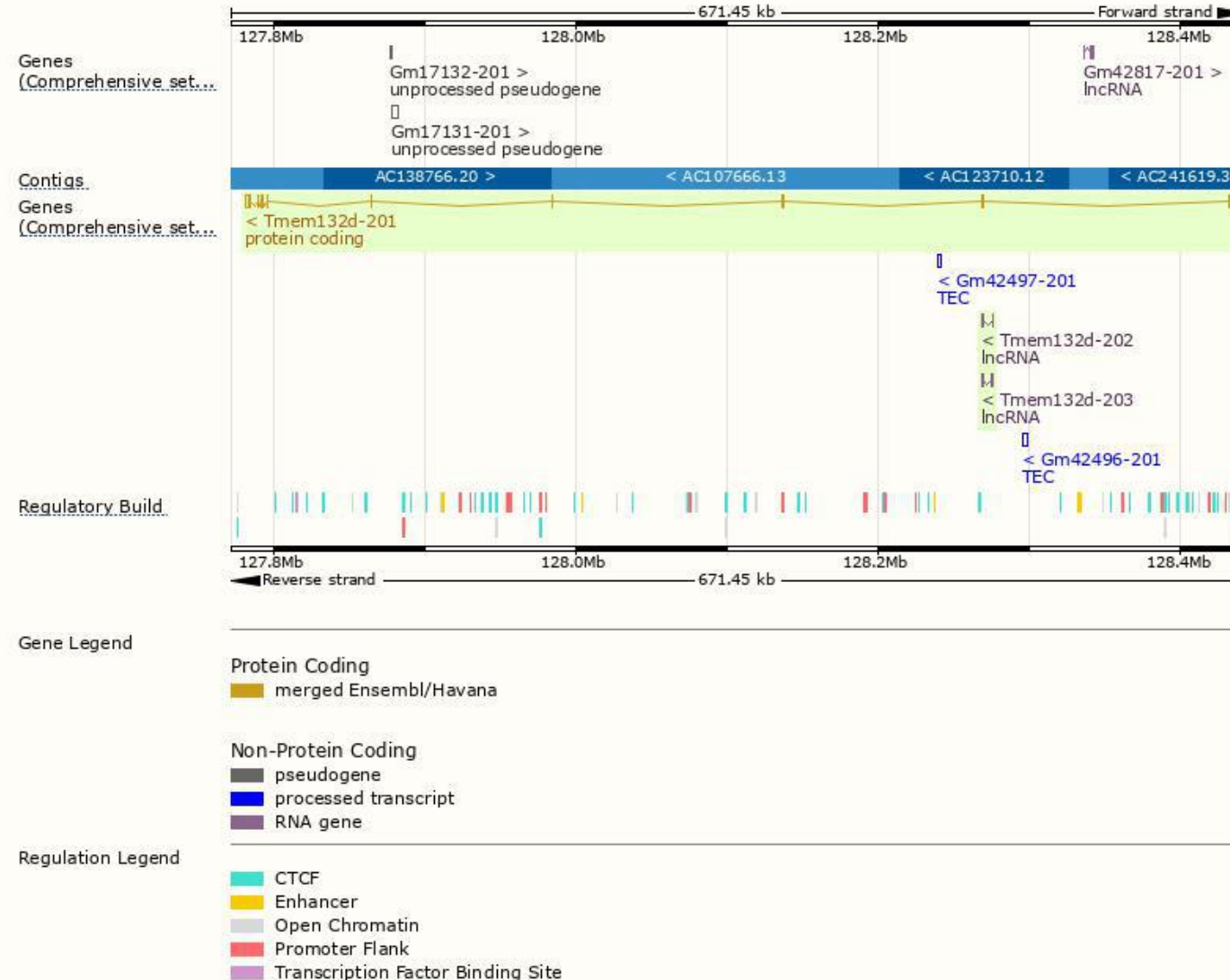
The gene has 3 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Tmem132d-201	ENSMUST00000044441.7	6139	1097aa	Protein coding	CCDS39287	A0A0R4J0I2	TSL:1 GENCODE basic APPRIS P1
Tmem132d-203	ENSMUST00000200316.1	748	No protein	lncRNA	-	-	TSL:3
Tmem132d-202	ENSMUST00000200136.1	742	No protein	lncRNA	-	-	TSL:2

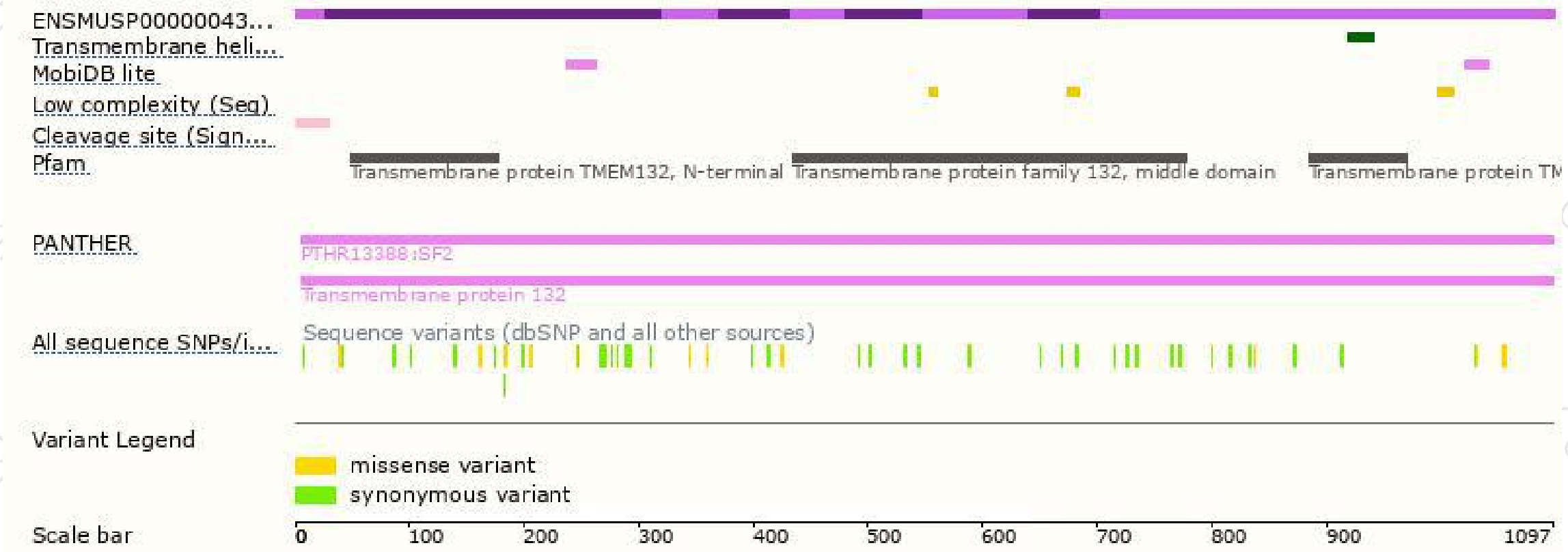
The strategy is based on the design of *Tmem132d-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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