

Mynn Cas9-KO Strategy

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Project Overview

Project Name

Mynn

Project type

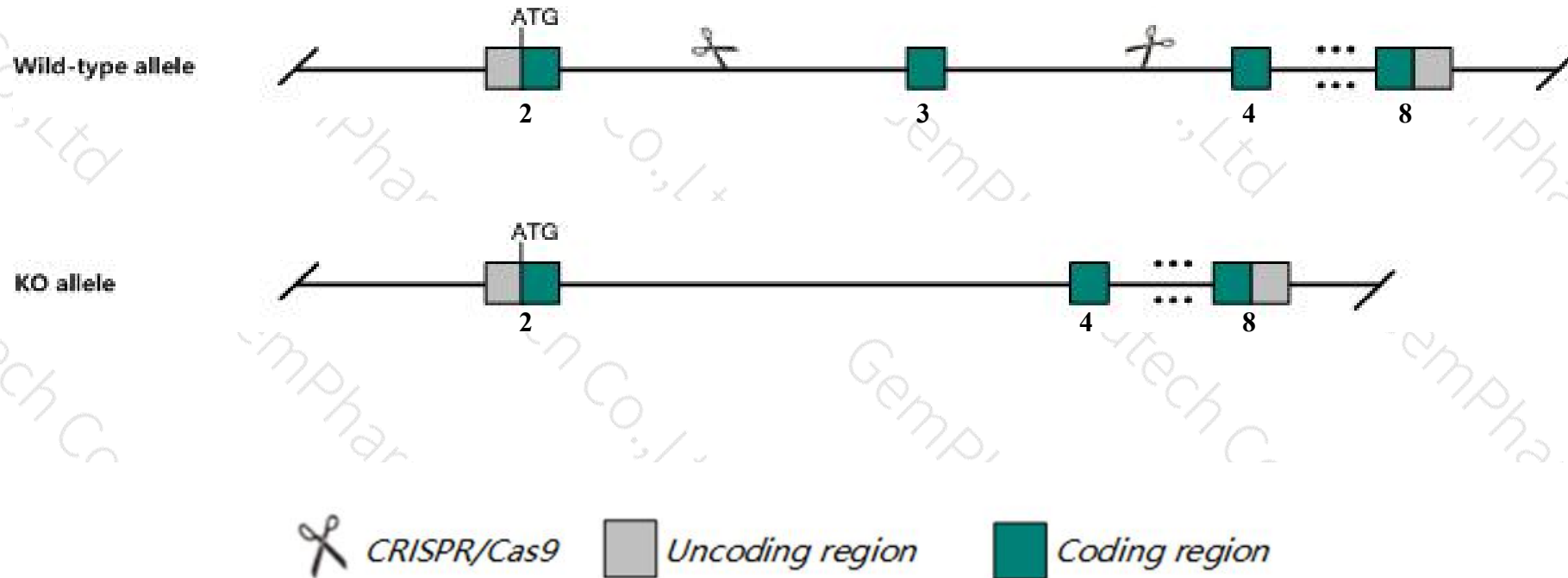
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

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



- The *Mynn* gene has 6 transcripts. According to the structure of *Mynn* gene, exon3 of *Mynn-202* (ENSMUST00000192715.5) transcript is recommended as the knockout region. The region contains 794bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Mynn* gene. The brief process is as follows: CRISPR/Cas9 system w

- The *Mynn* gene is located on the Chr3. 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)

Mynn myoneurin [*Mus musculus* (house mouse)]

Gene ID: 80732, updated on 10-Oct-2019

Summary

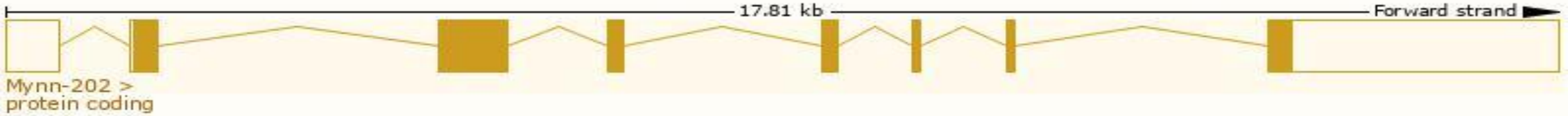
Official Symbol	Mynn provided by MGI
Official Full Name	myoneurin provided by MGI
Primary source	MGI:MGI:1931415
See related	Ensembl:ENSMUSG000000037730
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	Mynr; SBBIZ1; AA415053; AI661031; AW049392; 2810011C24Rik
Expression	Ubiquitous expression in limb E14.5 (RPKM 3.7), CNS E11.5 (RPKM 3.7) and 28 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

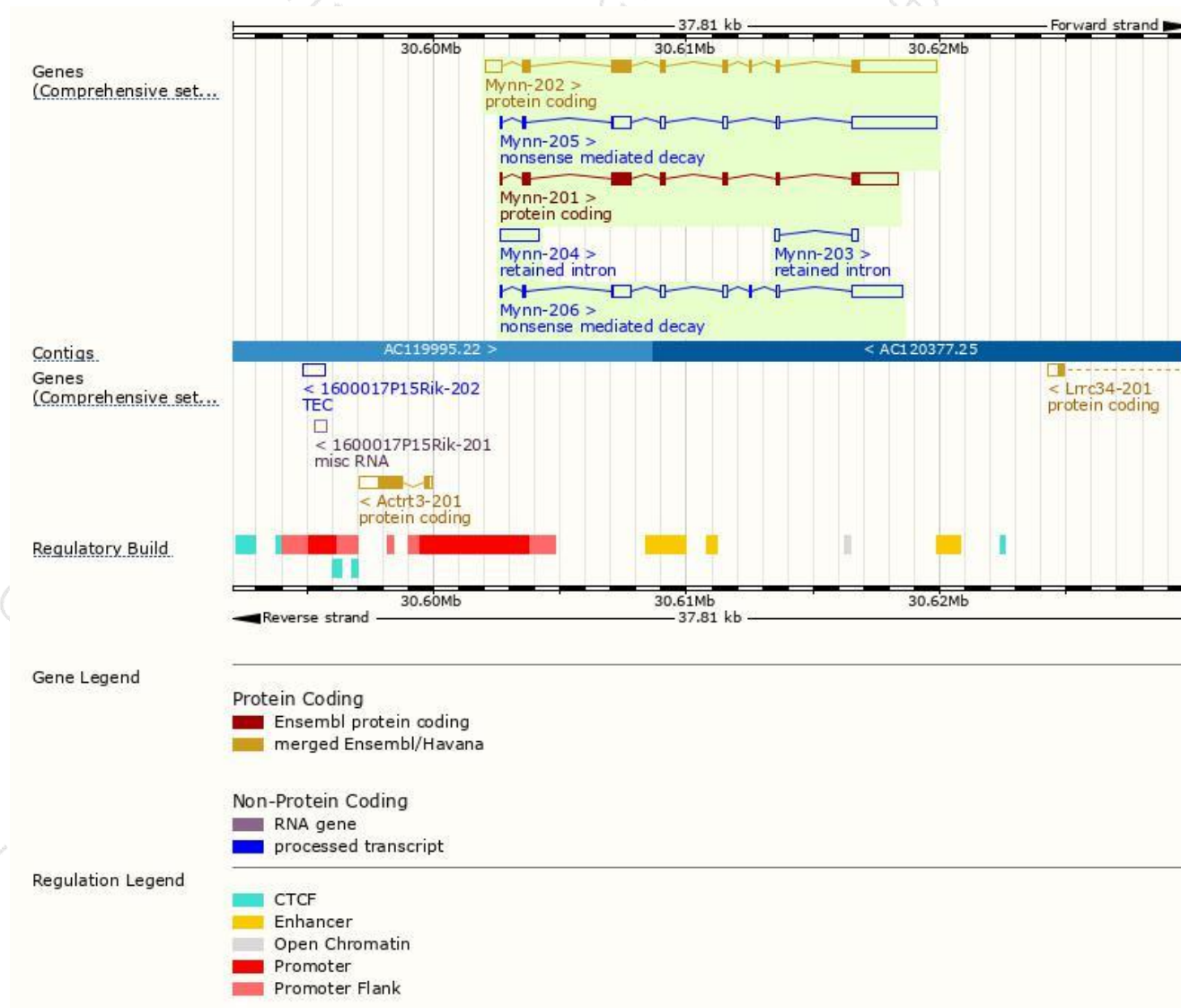
The gene has 6 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Mynn-202	ENSMUST00000192715.5	5555	610aa	Protein coding	CCDS17284	Q99MD8	TSL:1 GENCODE basic APPRIS P1
Mynn-201	ENSMUST00000047502.8	3394	582aa	Protein coding	CCDS79891	Q99MD8	TSL:1 GENCODE basic
Mynn-205	ENSMUST00000195396.5	4775	60aa	Nonsense mediated decay	-	Q99MD8	TSL:1
Mynn-206	ENSMUST00000195751.1	3474	60aa	Nonsense mediated decay	-	Q99MD8	TSL:1
Mynn-204	ENSMUST00000194587.1	1522	No protein	Retained intron	-	-	TSL:NA
Mynn-203	ENSMUST00000193736.1	373	No protein	Retained intron	-	-	TSL:2

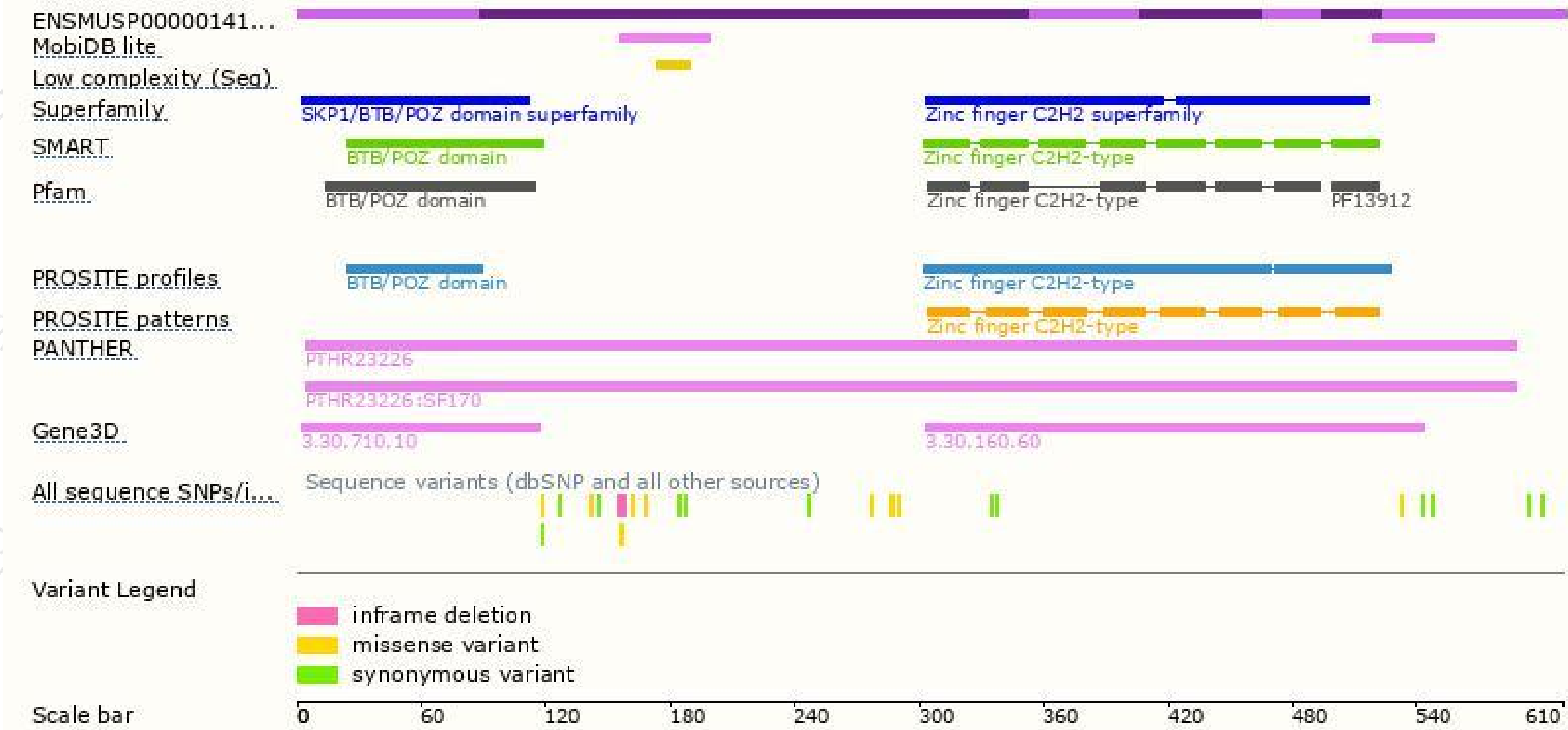
The strategy is based on the design of *Mynn-202* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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