

Dnajc5b Cas9-KO Strategy

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Project Overview

Project Name

Dnajc5b

Project type

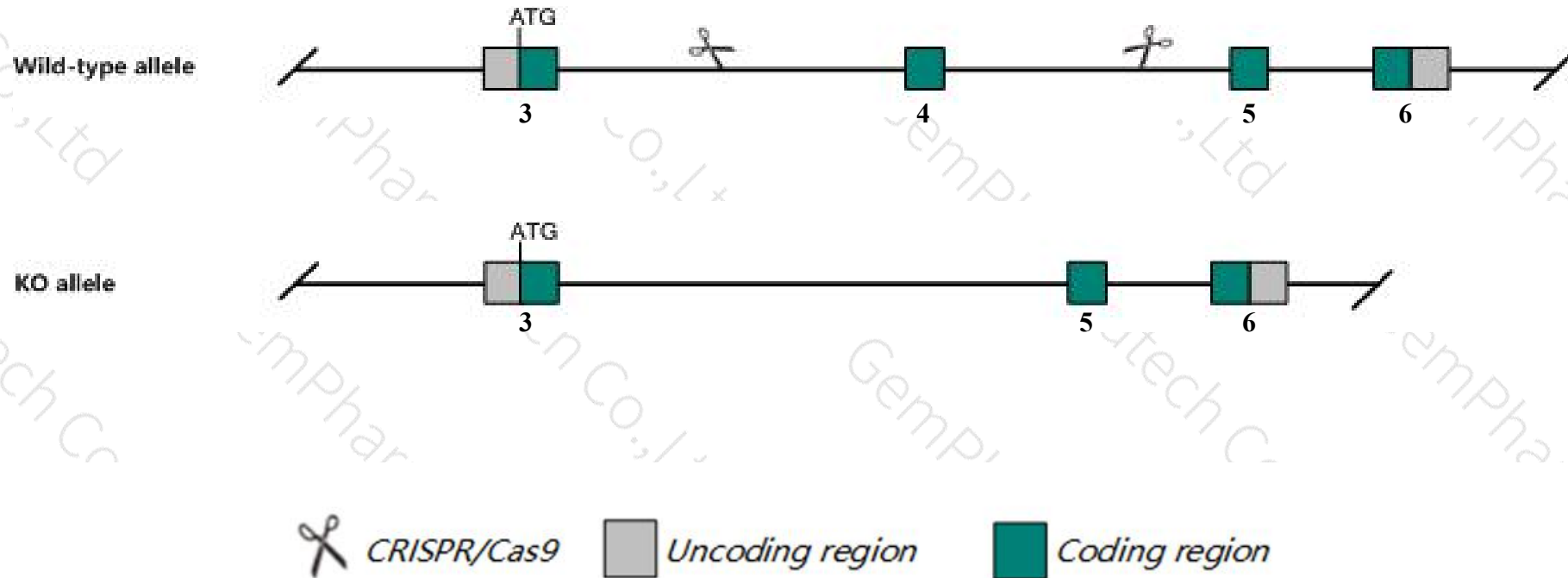
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Dnajc5b* gene. The schematic diagram is as follows:



- The *Dnajc5b* gene has 4 transcripts. According to the structure of *Dnajc5b* gene, exon4 of *Dnajc5b*-202 (ENSMUST00000118735.7) transcript is recommended as the knockout region. The region contains 214bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Dnajc5b* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Dnajc5b* 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)

Dnajc5b DnaJ heat shock protein family (Hsp40) member C5 beta [Mus musculus (house mouse)]

Gene ID: 66326, updated on 31-Jan-2019

Summary



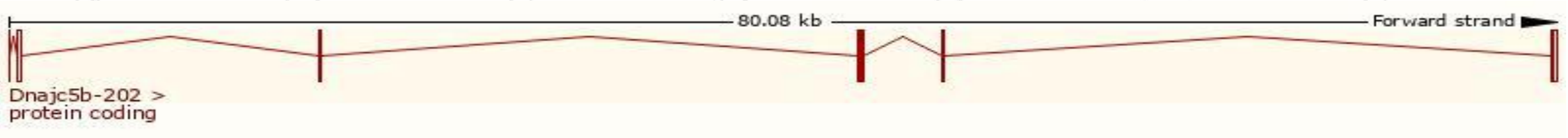
Official Symbol	Dnajc5b provided by MGI
Official Full Name	DnaJ heat shock protein family (Hsp40) member C5 beta provided by MGI
Primary source	MGI:MGI:1913576
See related	Ensembl:ENSMUSG000000027606
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	1700008A05Rik
Expression	Restricted expression toward testis adult (RPKM 67.1) See more
Orthologs	human all

Transcript information (Ensembl)

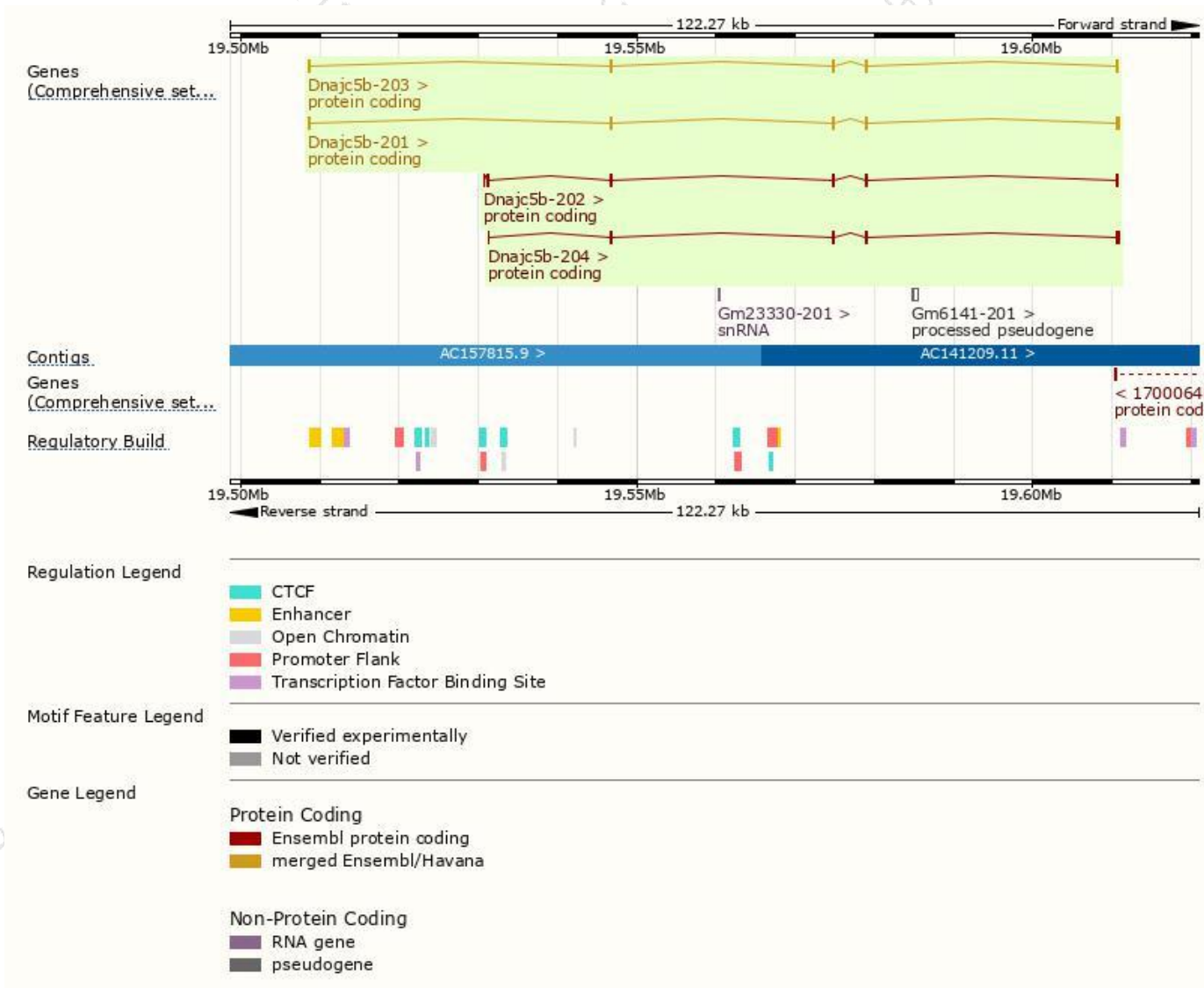
The gene has 4 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Dnajc5b-202	ENSMUST00000118735.7	1035	199aa	Protein coding	CCDS17257	Q9CQ94	TSL:5 GENCODE basic APPRIS P1
Dnajc5b-204	ENSMUST00000165693.1	955	199aa	Protein coding	CCDS17257	Q9CQ94	TSL:3 GENCODE basic APPRIS P1
Dnajc5b-201	ENSMUST00000029132.10	923	199aa	Protein coding	CCDS17257	Q9CQ94	TSL:1 GENCODE basic APPRIS P1
Dnajc5b-203	ENSMUST00000118968.7	806	199aa	Protein coding	CCDS17257	Q9CQ94	TSL:2 GENCODE basic APPRIS P1

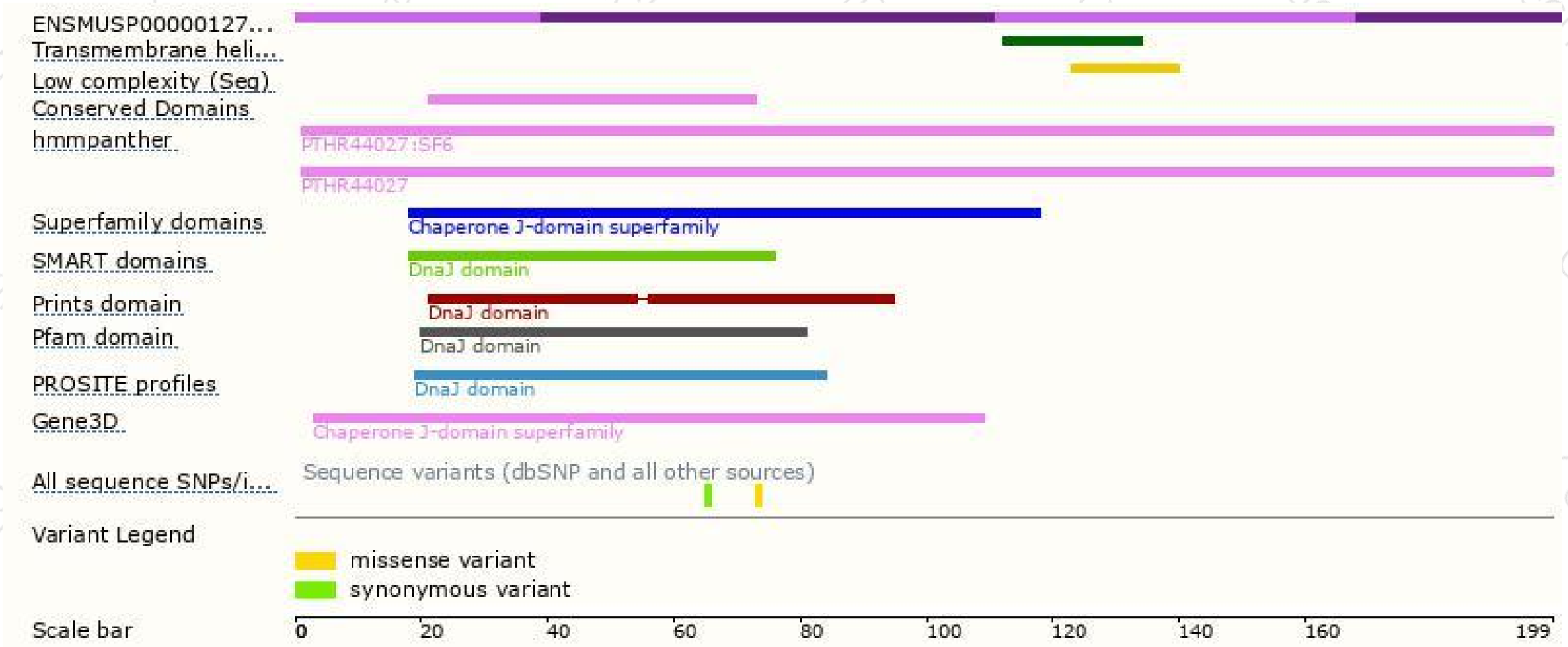
The strategy is based on the design of *Dnajc5b-202* transcript,The transcription is shown below



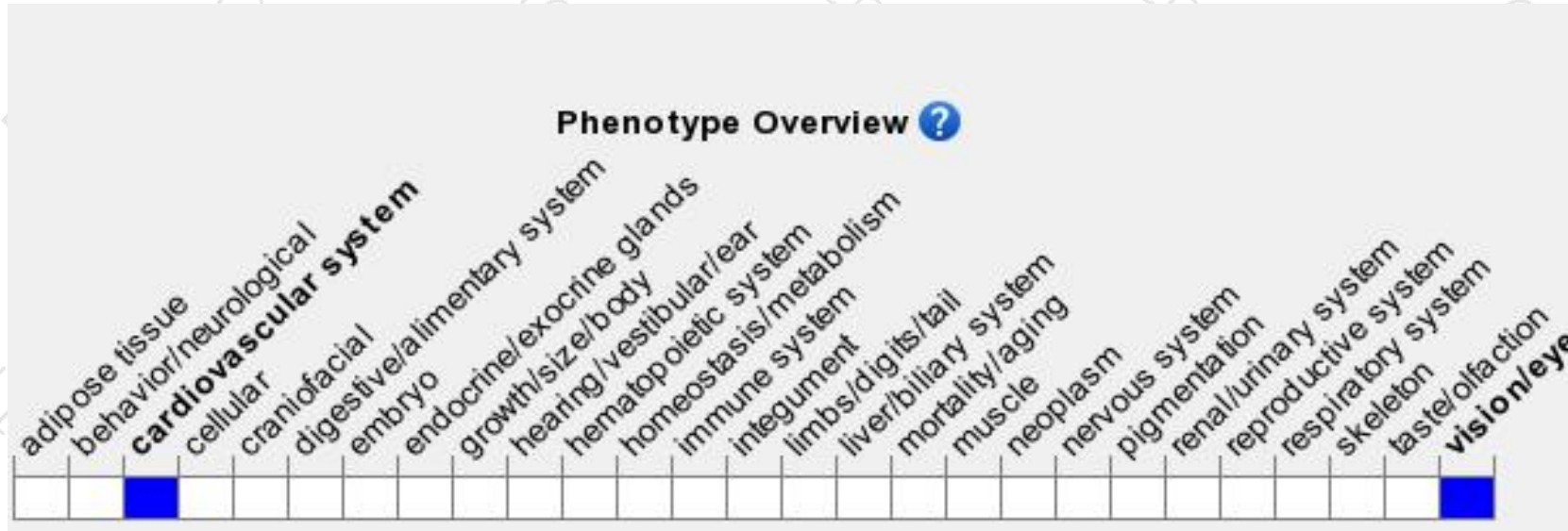
Genomic location distribution



Protein domain



Mouse phenotype description(MGI)



Phenotypes affected by the gene are marked in blue. Data quoted from MGI database(<http://www.informatics.jax.org/>).

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

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