

Adgre4 Cas9-KO Strategy

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Project Overview

Project Name

Adgre4

Project type

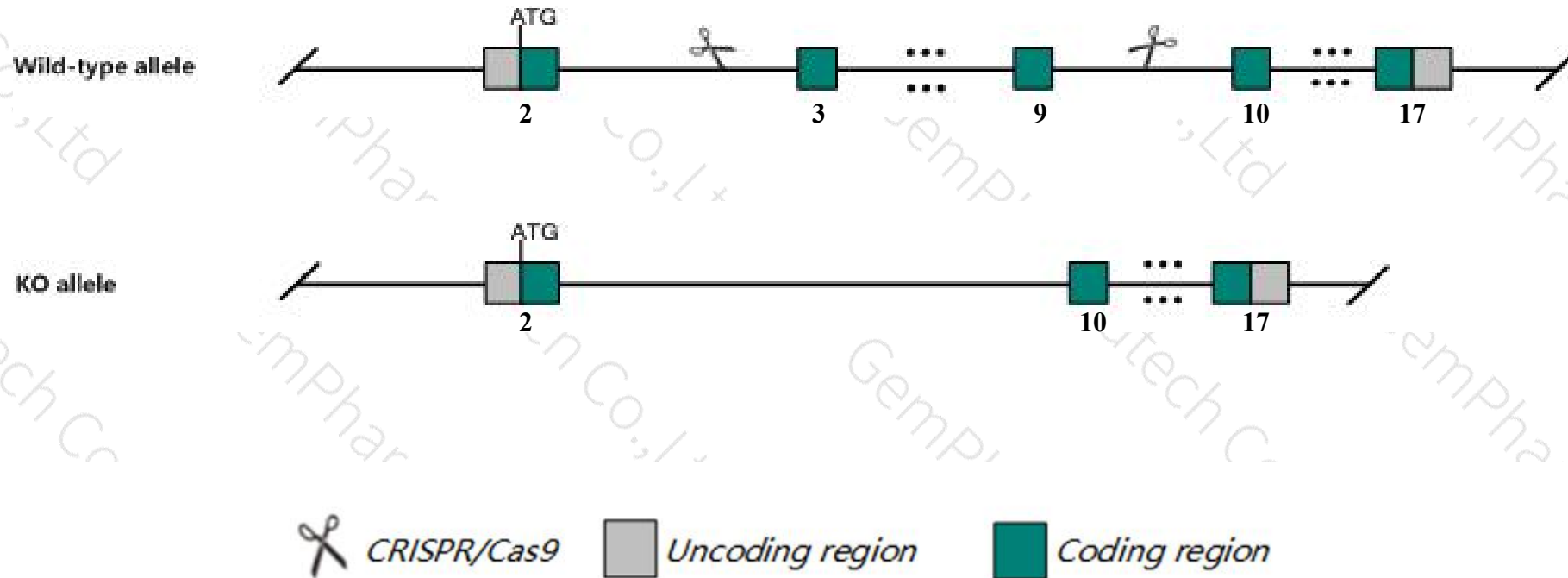
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Adgre4* gene. The schematic diagram is as follows:



- The *Adgre4* gene has 1 transcript. According to the structure of *Adgre4* gene, exon3-exon9 of *Adgre4-201* (ENSMUST00000025004.6) transcript is recommended as the knockout region. The region contains 791bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Adgre4* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Adgre4* gene is located on the Chr17. 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)

Adgre4 adhesion G protein-coupled receptor E4 [Mus musculus (house mouse)]

Gene ID: 52614, updated on 19-Mar-2019

Summary



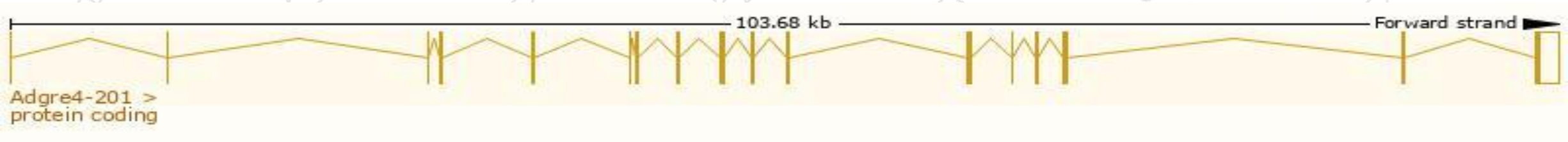
Official Symbol	Adgre4 provided by MGI
Official Full Name	adhesion G protein-coupled receptor E4 provided by MGI
Primary source	MGI:MGI:1196464
See related	Ensembl:ENSMUSG00000032915
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	D17Etd479e, Egf-tm7, Emr4, Fire, Gpr127
Expression	Biased expression in spleen adult (RPKM 6.8), lung adult (RPKM 1.5) and 8 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

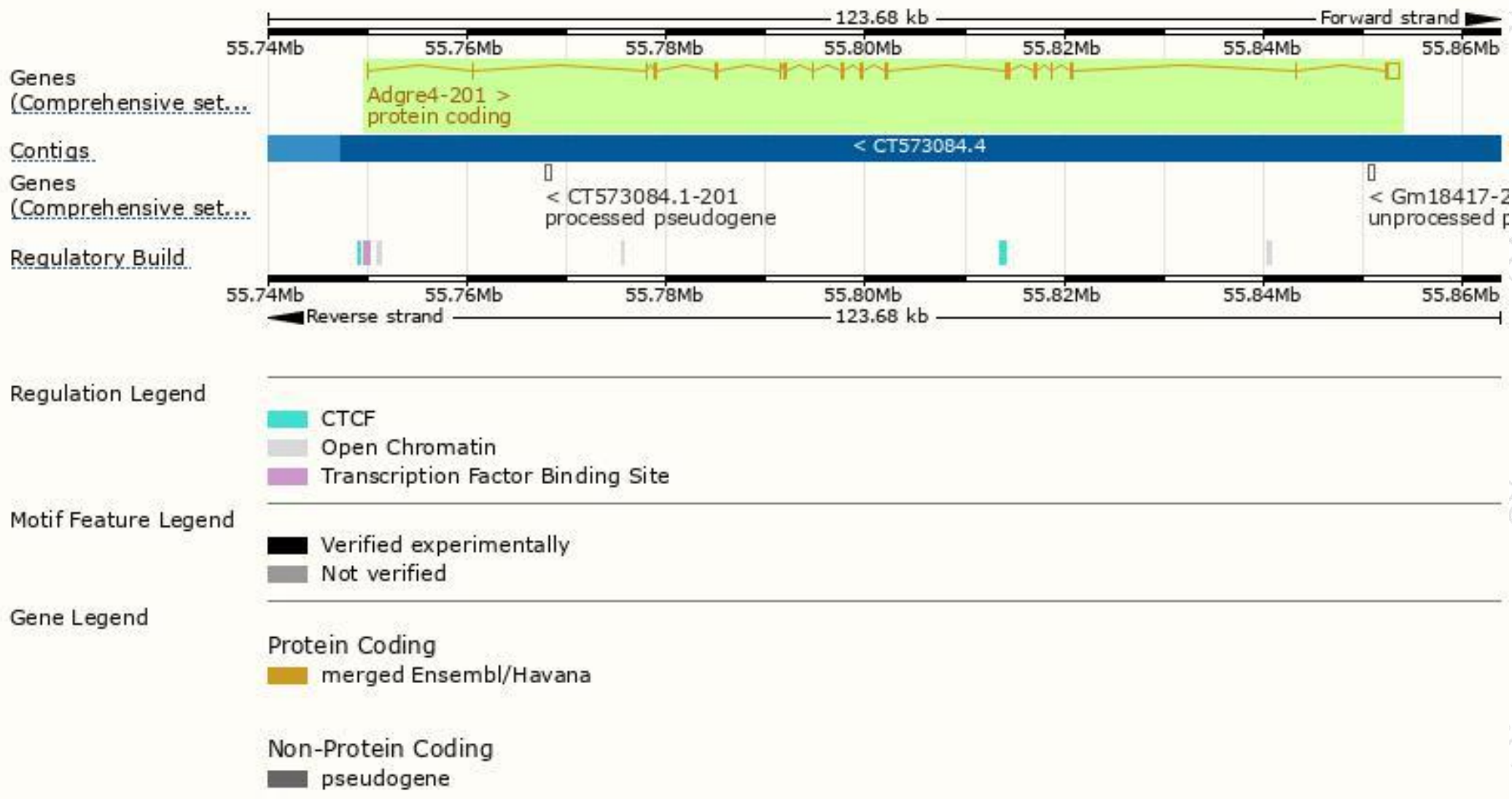
The gene has 1 transcript, and the transcript is shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Adgre4-201	ENSMUST00000025004.6	3491	689aa	Protein coding	CCDS50148	Q91ZE5	TSL:1 GENCODE basic APPRIS P1

The strategy is based on the design of *Adgre4-201* transcript, The transcription is shown below



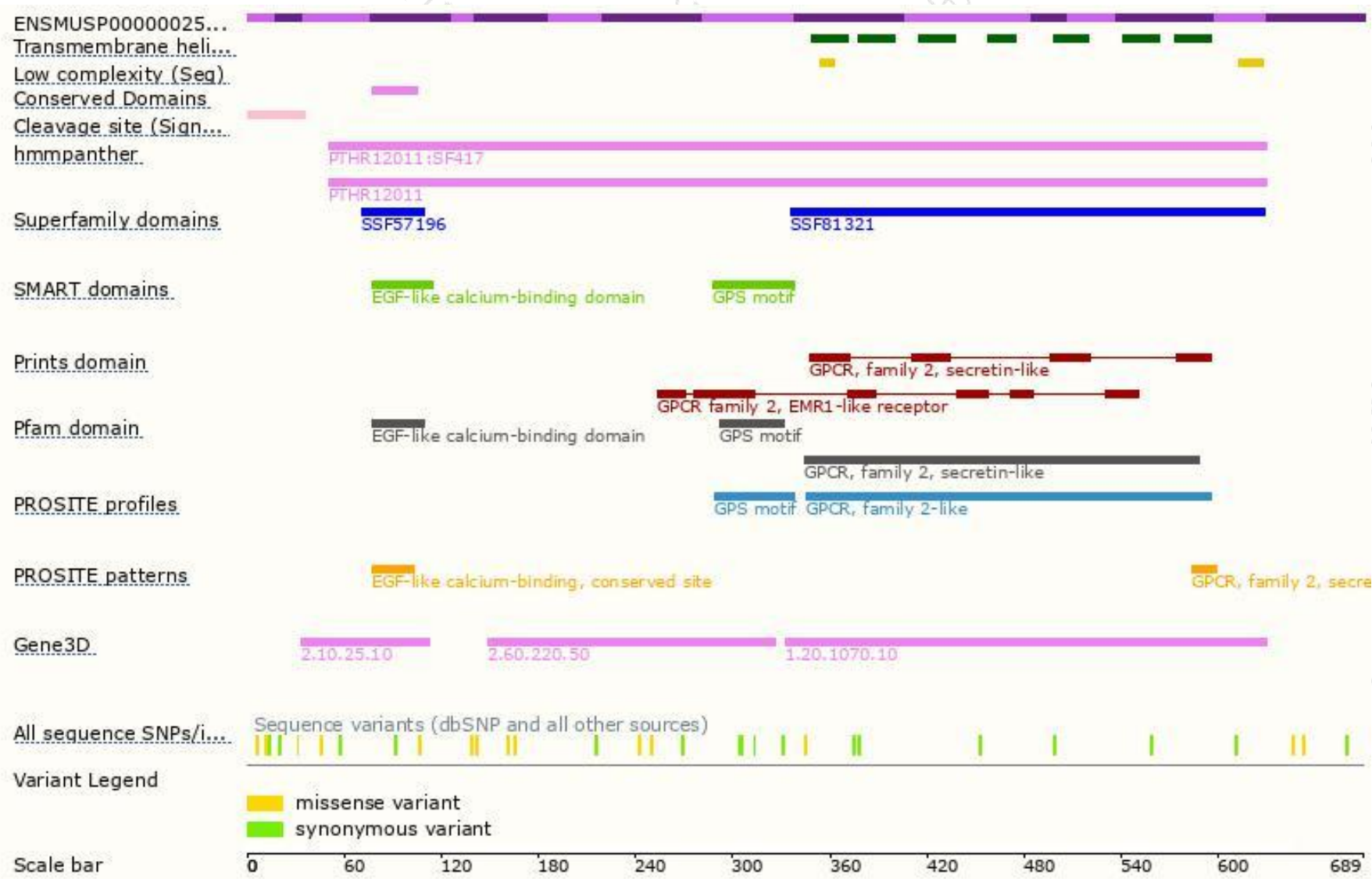
Genomic location distribution



Protein domain



集萃药康
GemPharmatech



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

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