

Pla2g2f Cas9-KO Strategy

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Design Date:

2020-2-24

Project Overview

Project Name

Pla2g2f

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Pla2g2f* gene. The schematic diagram is as follows:



- The *Pla2g2f* gene has 1 transcript. According to the structure of *Pla2g2f* gene, exon2-exon4 of *Pla2g2f-201* (ENSMUST00000030526.6) transcript is recommended as the knockout region. The region contains 308bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Pla2g2f* gene. The brief process is as follows: CRISPR/Cas9 system

- According to the existing MGI data, Mice homozygous for a knock-out allele exhibit normal IgE antigen-dependent passive cutaneous anaphylaxis.
- The *Pla2g2f* gene is located on the Chr4. 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)

Pla2g2f phospholipase A2, group IIF [Mus musculus (house mouse)]

Gene ID: 26971, updated on 31-Jan-2019

Summary



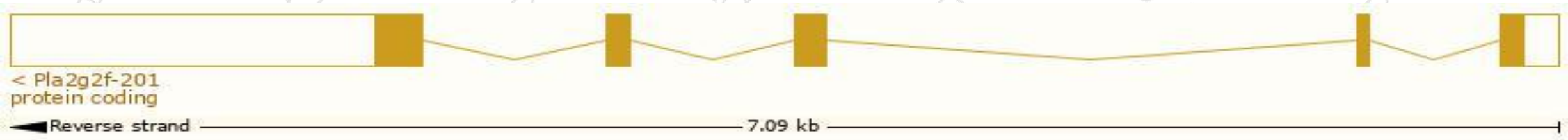
Official Symbol	Pla2g2f provided by MGI
Official Full Name	phospholipase A2, group IIF provided by MGI
Primary source	MGI:MGI:1349661
See related	Ensembl:ENSMUSG00000028749
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	GIIFsPLA2, sPLA2-IIF
Expression	Biased expression in adrenal adult (RPKM 28.5), colon adult (RPKM 24.7) and 6 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

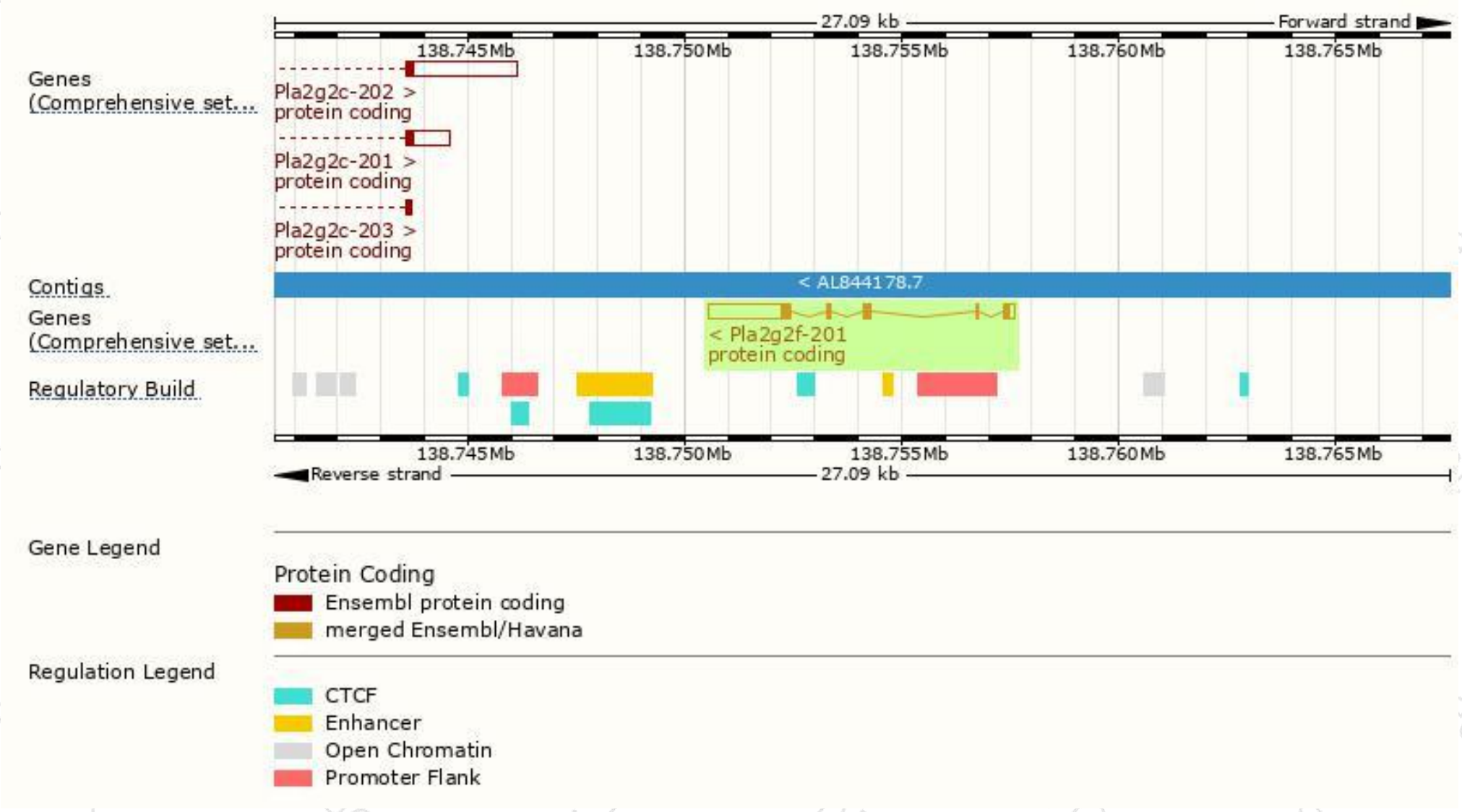
The gene has 1 transcript, and the transcript is shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Pla2g2f-201	ENSMUST00000030526.6	2465	210aa	Protein coding	CCDS18832	Q9QZT4	TSL:1 GENCODE basic APPRIS P1

The strategy is based on the design of *Pla2g2f-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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