

Lypd2 Cas9-KO Strategy

Designer:: Ruirui Zhang

Reviewer: Huimin Su

Design Date:2019-9-25

Project Overview

Project Name

Lypd2

Project type

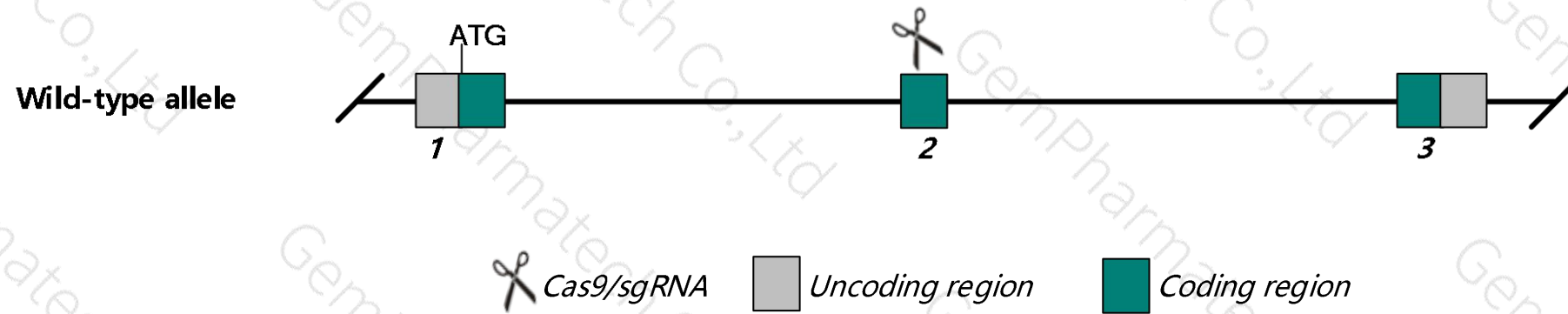
Cas9-KO

Strain background

C57BL/6N

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Lypd2* gene. The schematic diagram is as follows:



- In this project we use CRISPR/Cas9 technology to modify *Lypd2* gene. The brief process is as follows: sgRNA was transcribed in vitro. Cas9 and sgRNA were microinjected into the fertilized eggs of C57BL/6N mice. Fertilized eggs were transplanted to obtain positive F0 mice which were confirmed by PCR and sequencing. A stable F1 generation mouse model was obtained by mating positive F0 generation mice with C57BL/6N mice.

- The *Lypd2* gene is located on the Chr15. 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)

Lypd2 Ly6/Plaur domain containing 2 [*Mus musculus* (house mouse)]

Gene ID: 68311, updated on 12-Aug-2019

Summary

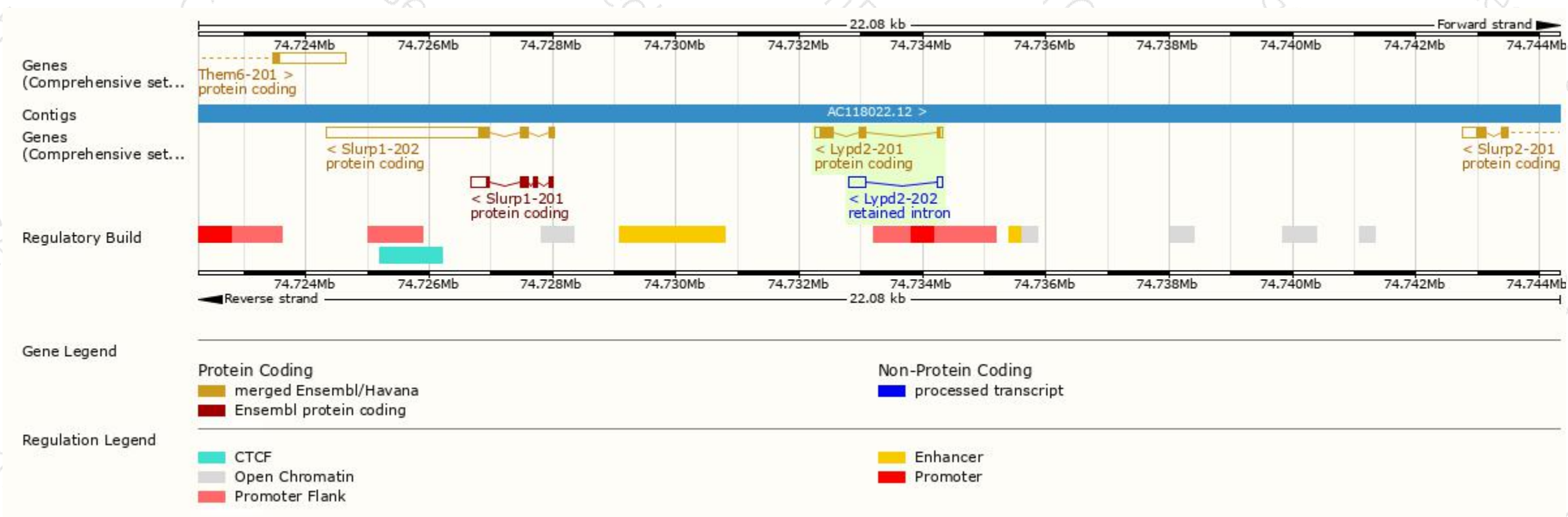
Official Symbol	Lypd2 provided by MGI
Official Full Name	Ly6/Plaur domain containing 2 provided by MGI
Primary source	MGI:MGI:1915561
See related	Ensembl:ENSMUSG00000022595
Gene type	protein coding
RefSeq status	PROVISIONAL
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	VLL; Lypdc2; 0610005K03Rik
Expression	Biased expression in lung adult (RPKM 49.0), kidney adult (RPKM 10.0) and 1 other tissue See more
Orthologs	human all

Transcript information (Ensembl)

The gene has 2 transcripts, all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Lypd2-201	ENSMUST00000023260.4	513	127aa	Protein coding	CCDS27529	Q9DD23	TSL:1 Gencode basic APPRIS P1
Lypd2-202	ENSMUST00000188716.1	374	No protein	Retained intron	-	-	TSL:2

Genomic location distribution



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

Tel: 025-5864 1534

