Ppp1r14a Cas9-KO Strategy

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Project Overview

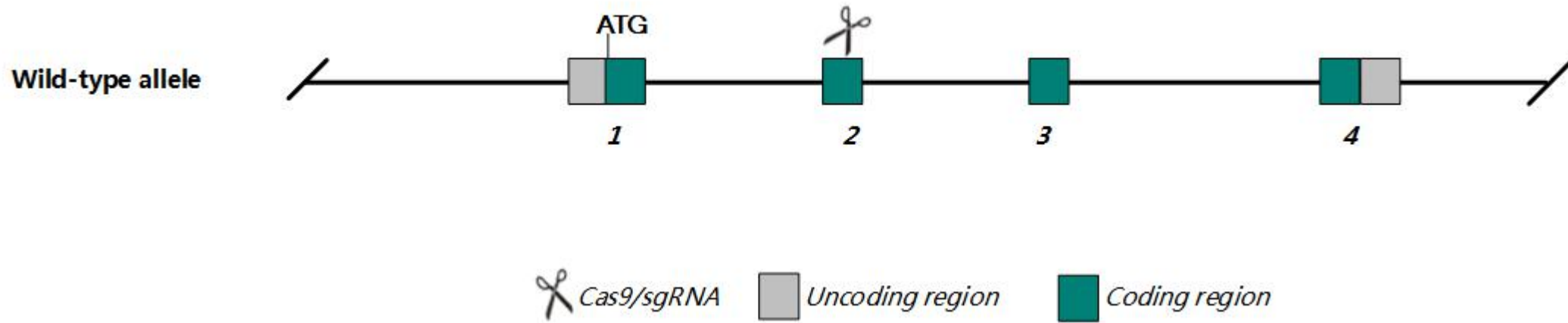|	
Project Name	***Ppp1r14a***
Project type	**Cas9-KO**
Strain background	**C57BL/6N**

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Ppp1r14a* gene. The schematic diagram is as follows:

Technical routes

➤ In this project we use CRISPR/Cas9 technology to modify *Ppp1r14a* 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.

Notice

➢ The *Ppp1r14a* gene is located on the Chr7, 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）

Ppp1r14a   protein phosphatase 1, regulatory inhibitor subunit 14A [*Mus musculus* (house mouse)]

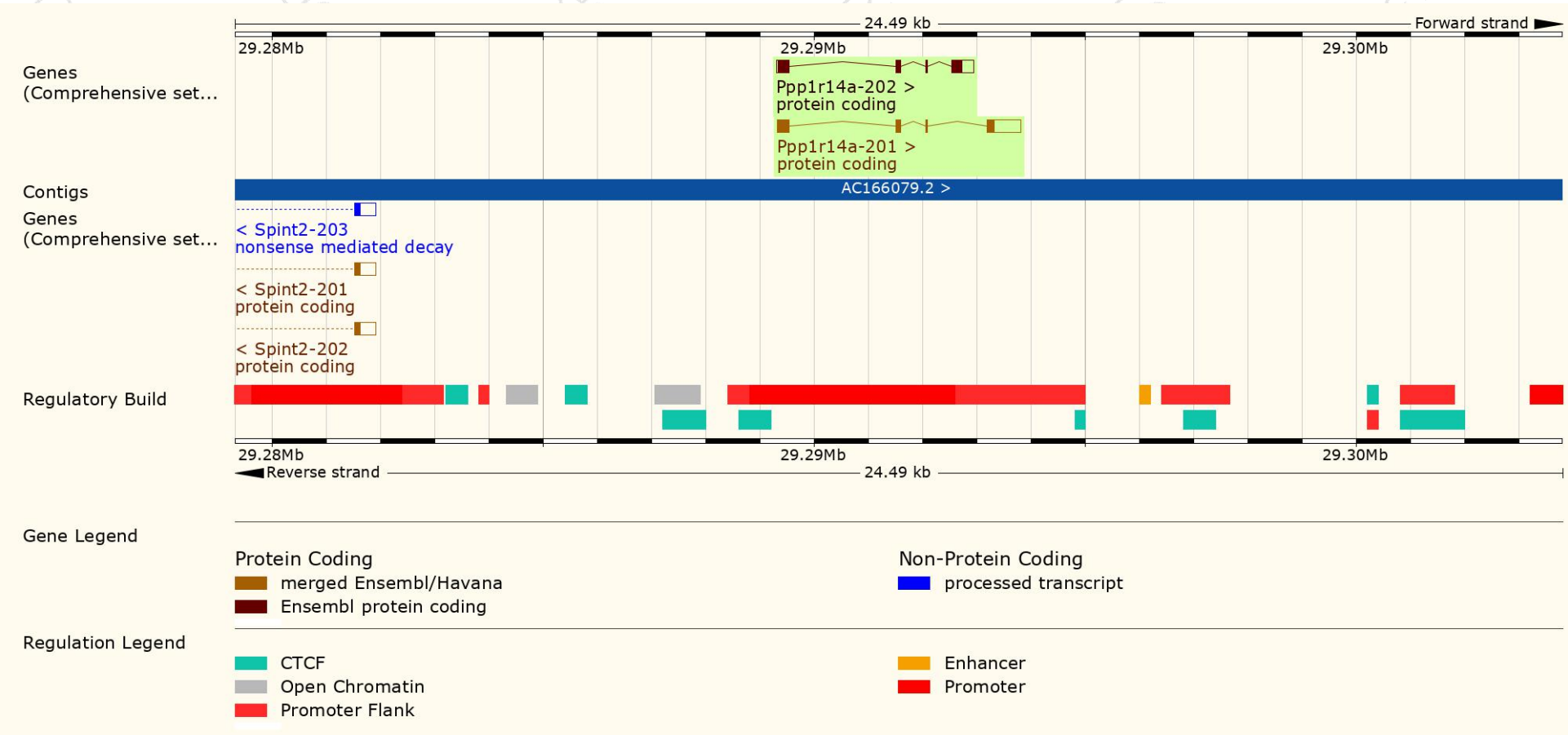Gene ID: 68458, updated on 12-Aug-2019

▲ Summary

Official Symbol	Ppp1r14a provided by MGI
Official Full Name	protein phosphatase 1, regulatory inhibitor subunit 14A provided by MGI
Primary source	MGI:MGI:1931139
See related	Ensembl:ENSMUSG00000037166
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	Cpi17; 1110001M11Rik
Expression	Biased expression in bladder adult (RPKM 168.4), lung adult (RPKM 163.0) and 13 other tissues 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
Ppp1r14a-201	ENSMUST00000048187.5	950	147aa	Protein coding	CCDS21070	Q91VC7	TSL:1　GENCODE basic　APPRIS P1
Ppp1r14a-202	ENSMUST00000207714.1	755	168aa	Protein coding	-	A0A140LI58	TSL:3　GENCODE basic

Genomic location distribution

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