

***Zdhhc14* Cas9-KO Strategy**

Designer:Xiaojing Li

Reviewer:JiaYu

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Project Overview

Project Name

Zdhhc14

Project type

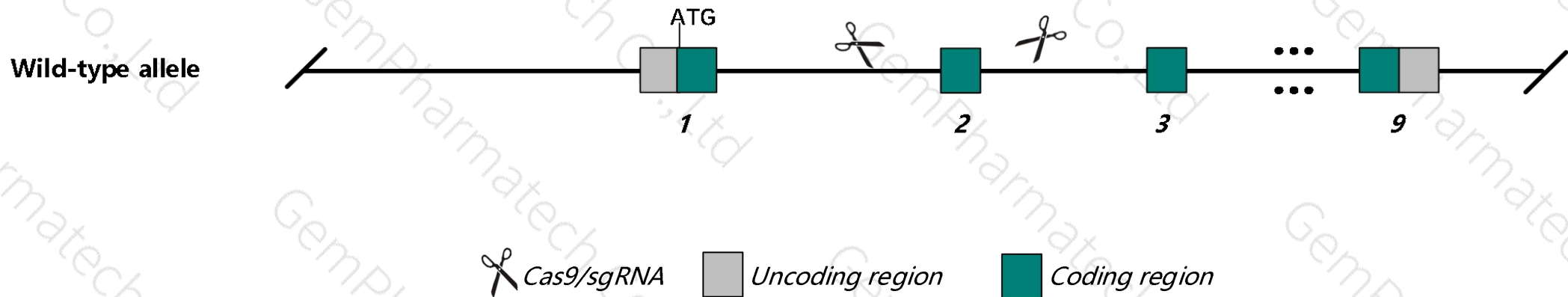
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Zdhhc14* gene. The schematic diagram is as follows:



- The *Zdhhc14* gene has 1 transcript. According to the structure of *Zdhhc14* gene, exon2 of *Zdhhc14-201* (ENSMUST00000089185.5) transcript is recommended as the knockout region. The region contains 161bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Zdhhc14* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Zdhhc14* 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)

Zdhhc14 zinc finger, DHHC domain containing 14 [*Mus musculus* (house mouse)]

Gene ID: 224454, updated on 13-Mar-2020

Summary

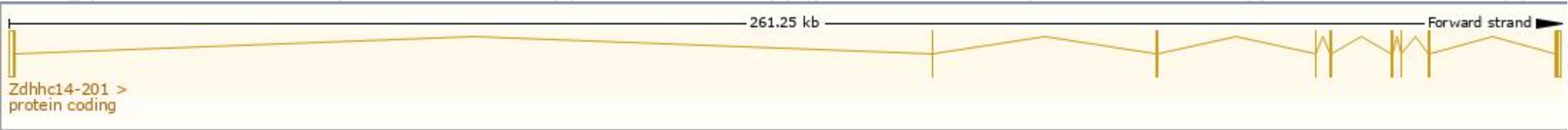
Official Symbol	Zdhhc14 provided by MGI
Official Full Name	zinc finger, DHHC domain containing 14 provided by MGI
Primary source	MGI:MGI:2653229
See related	Ensembl:ENSMUSG00000034265
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	New1cp; B530001K09Rik
Expression	Ubiquitous expression in cerebellum adult (RPKM 3.4), thymus adult (RPKM 3.0) and 28 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

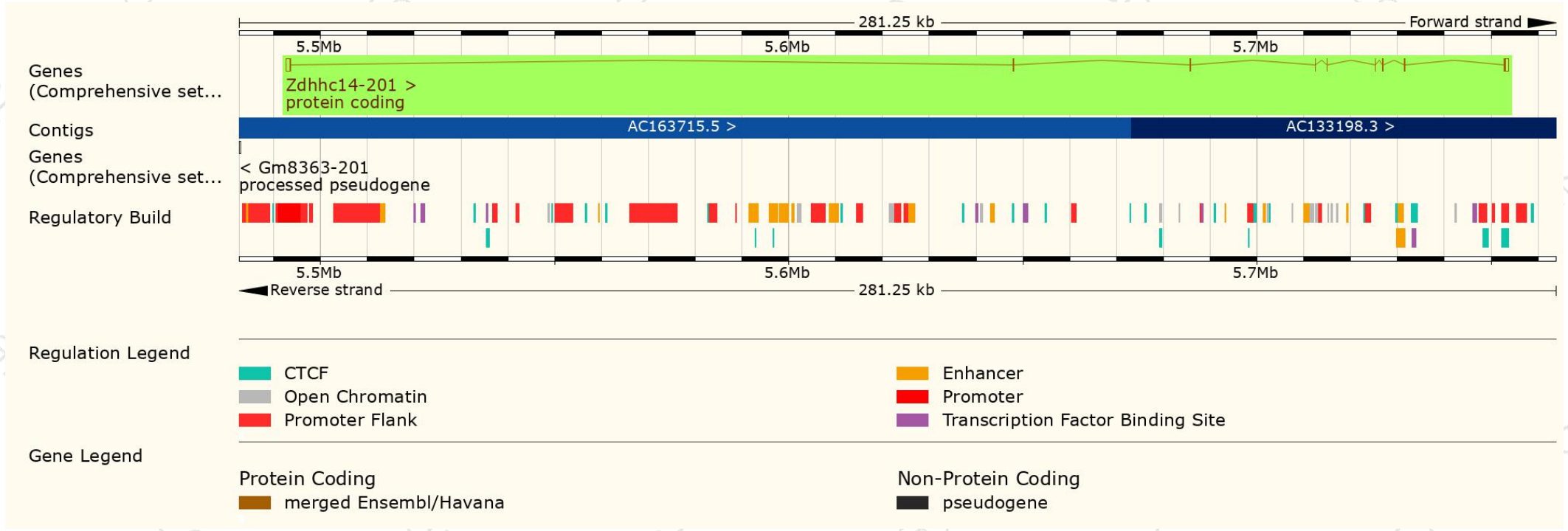
The gene has 1 transcript,all transcripts are shown below:

Name ▲	Transcript ID ▲	bp ▲	Protein ▲	Biotype ▲	CCDS ▲	UniProt ▲	Flags ▲
Zdhhc14-201	ENSMUST00000089185.5	3078	489aa	Protein coding	CCDS37422	Q8BQQ1	TSL:1 Gencode basic APPRIS P1

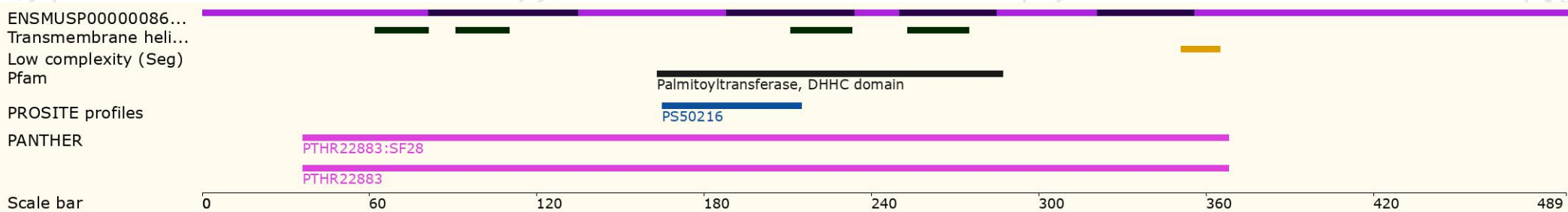
The strategy is based on the design of *Zdhhc14-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

Tel: 400-9660890

