

Ubqln2 Cas9-KO Strategy

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Reviewer:

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Design Date:

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Project Overview

Project Name

Ubqln2

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Ubqln2* gene. The schematic diagram is as follows:



- The *Ubqln2* gene has 1 transcript. According to the structure of *Ubqln2* gene, exon1 of *Ubqln2-201* (ENSMUST00000060714.9) transcript is recommended as the knockout region. The region contains all of the coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Ubqln2* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Ubqln2* gene is located on the ChrX. 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.

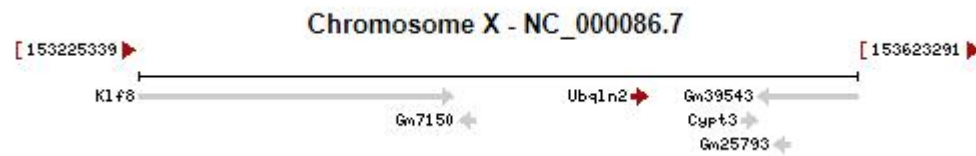


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Gene ID: 54609, updated on 24-Dec-2019

⬆️ ?

Orthologs [human](#) [all](#)

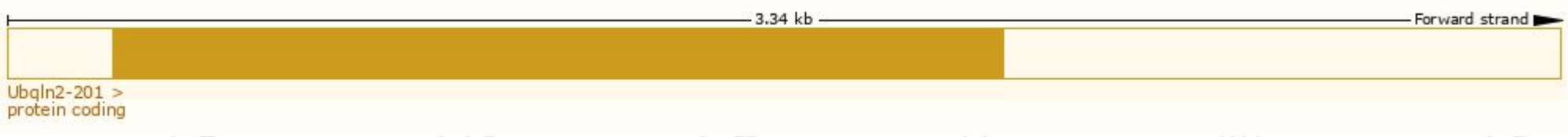


Transcript information (Ensembl)

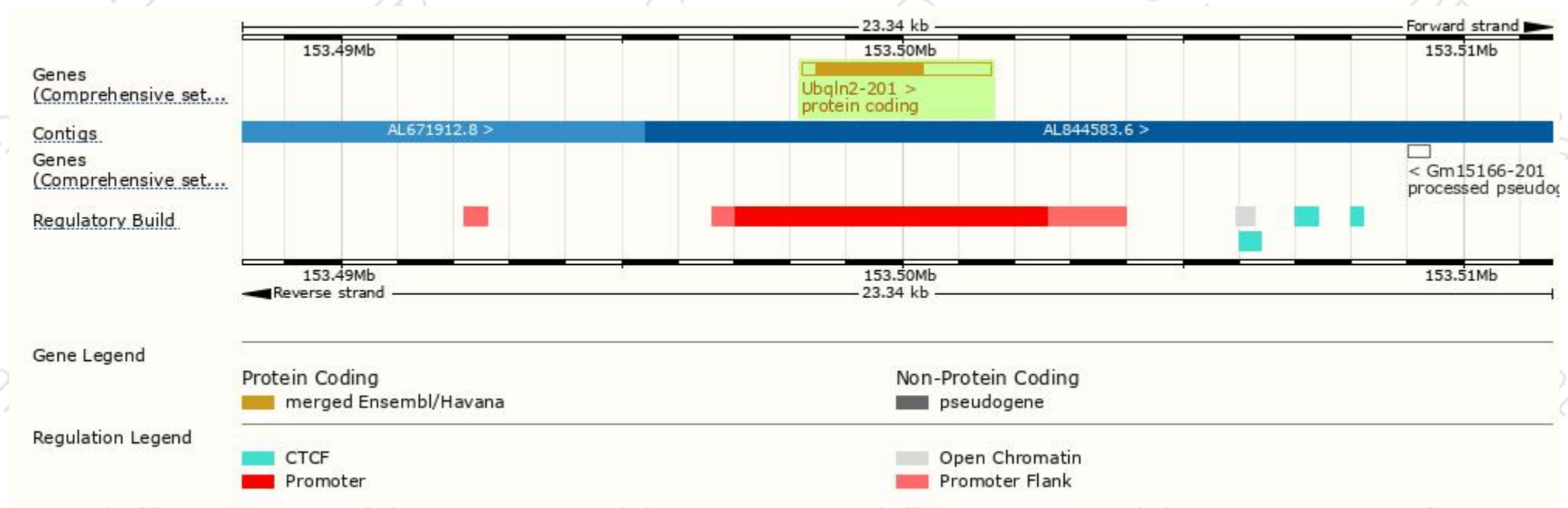
The gene has 1 transcript, and the transcript is shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Ubqln2-201	ENSMUST00000060714.9	3344	638aa	Protein coding	CCDS30482	Q9QZM0	TSL:NA GENCODE basic APPRIS P1

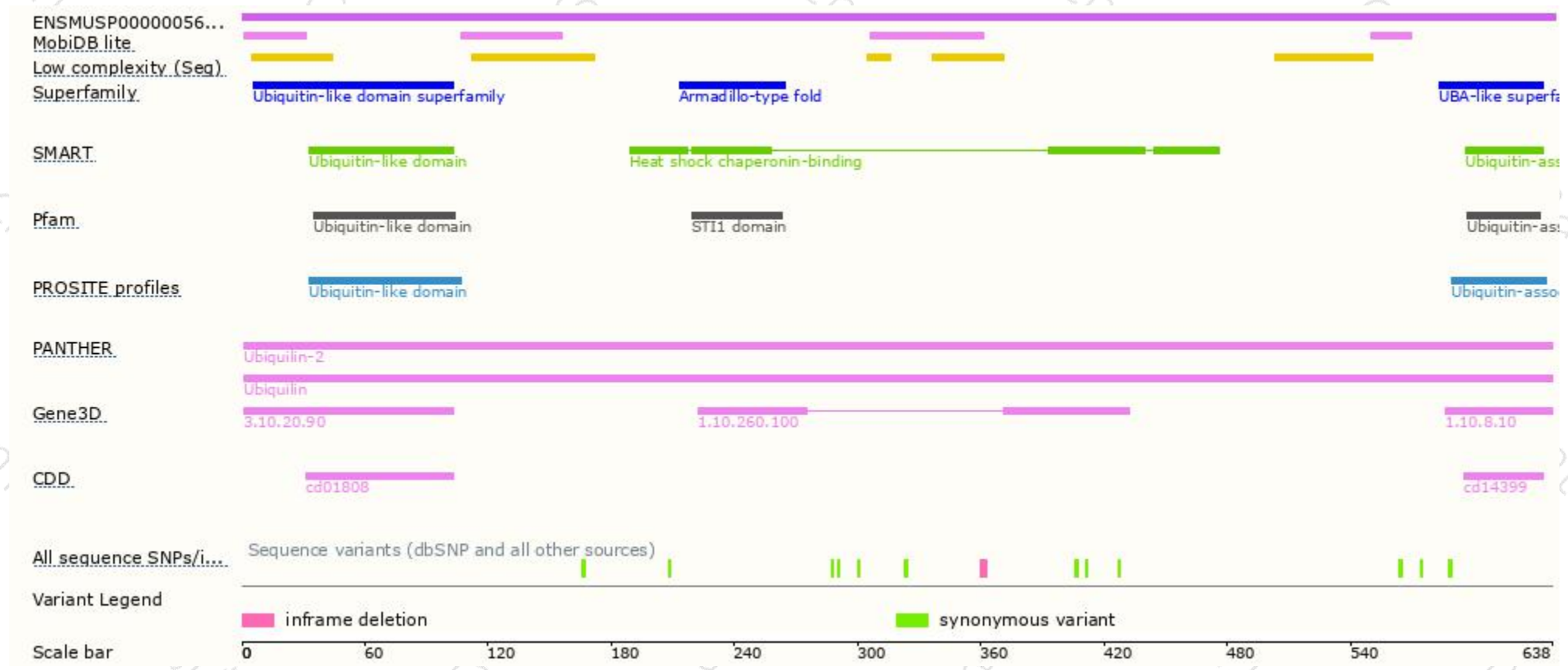
The strategy is based on the design of *Ubqln2-201* transcript, The transcription is shown below



Genomic location distribution



Protein domain



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

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