

Cnot11 Cas9-KO Strategy

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Project Overview

Project Name

Cnot11

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Cnot11* gene. The schematic diagram is as follows:



- The *Cnot11* gene has 4 transcripts. According to the structure of *Cnot11* gene, exon3-exon5 of *Cnot11*-203 (ENSMUST00000161515.7) transcript is recommended as the knockout region. The region contains 521bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Cnot11* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Cnot11* gene is located on the Chr1. 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)

Cnot11 CCR4-NOT transcription complex, subunit 11 [Mus musculus (house mouse)]

Gene ID: 52846, updated on 31-Jan-2019

Summary



Official Symbol	Cnot11 provided by MGI
Official Full Name	CCR4-NOT transcription complex, subunit 11 provided by MGI
Primary source	MGI:MGI:106580
See related	Ensembl:ENSMUSG000000003135
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	2410015L18Rik, C40, D1Bwg0212e
Expression	Ubiquitous expression in adrenal adult (RPKM 16.9), ovary adult (RPKM 16.4) and 28 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

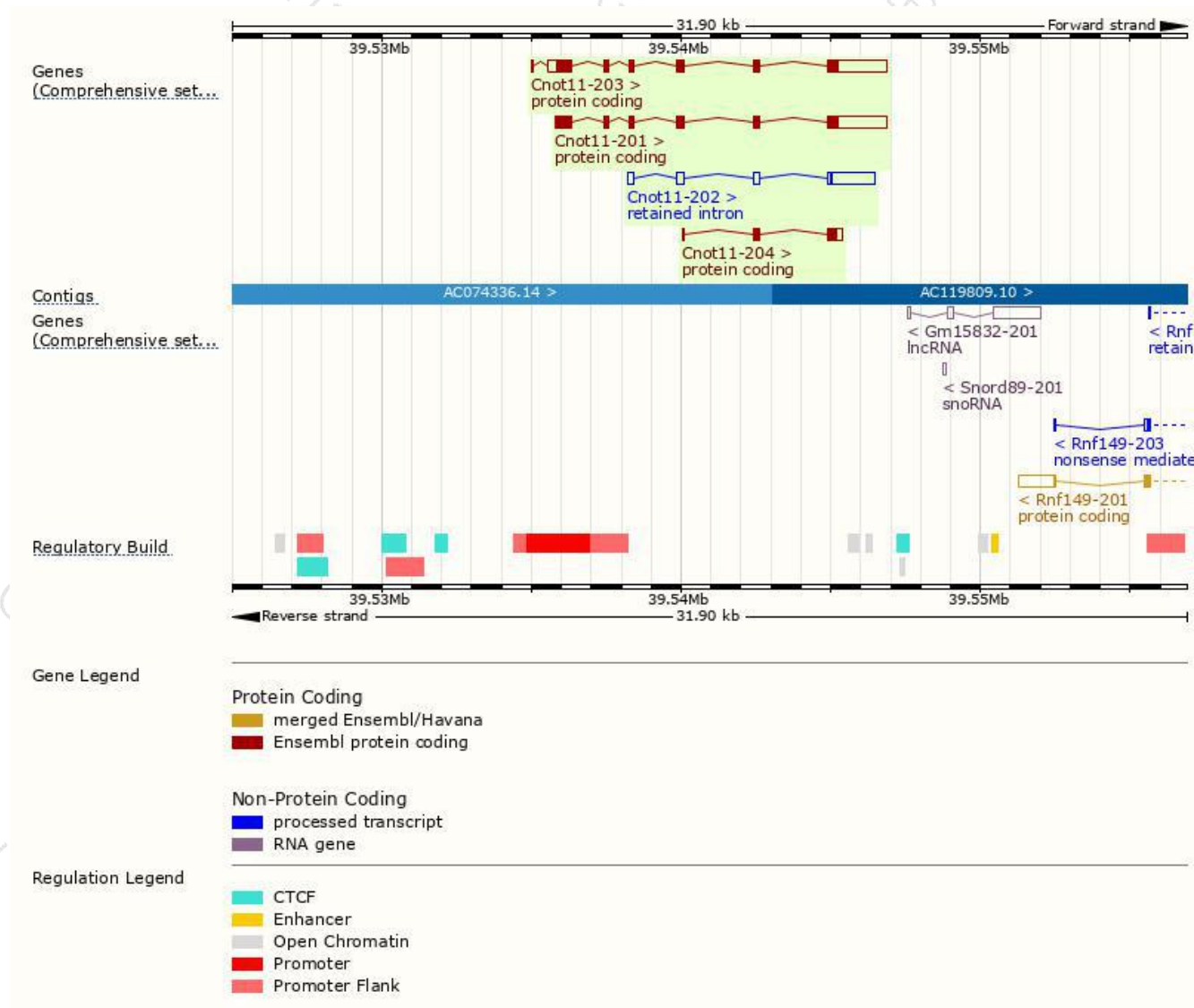
The gene has 4 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Cnot11-203	ENSMUST00000161515.7	3482	505aa	Protein coding	CCDS14906	Q9CWN7	TSL:1 GENCODE basic APPRIS P1
Cnot11-201	ENSMUST00000003219.13	3162	505aa	Protein coding	CCDS14906	Q9CWN7	TSL:1 GENCODE basic APPRIS P1
Cnot11-204	ENSMUST00000195567.1	635	149aa	Protein coding	-	A0A0A6YW44	CDS 5' incomplete TSL:5
Cnot11-202	ENSMUST00000160145.1	2097	No protein	Retained intron	-	-	TSL:1

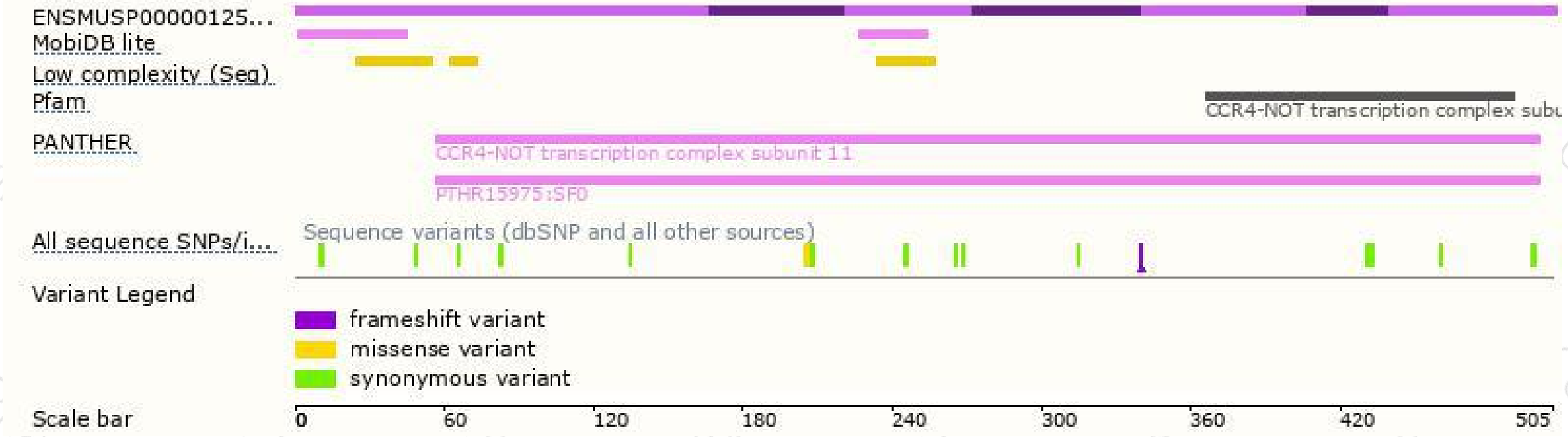
The strategy is based on the design of *Cnot11-203* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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