

Map3k21 Cas9-KO Strategy

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Design Date: 2019-8-28

Project Overview

Project Name

Map3k21

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Map3k21* gene. The schematic diagram is as follows:



- The *Map3k21* gene has 1 transcript. According to the structure of *Map3k21* gene, exon2-exon4 of *Map3k21-201* (ENSMUST00000034316.5) transcript is recommended as the knockout region. The region contains 506bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Map3k21* gene. The brief process is as follows: CRISPR/Cas9 syst

- The *Map3k21* gene is located on the Chr8. 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)

Map3k21 mitogen-activated protein kinase kinase kinase 21 [Mus musculus (house mouse)]

Gene ID: 234878, updated on 31-Jan-2019

Summary



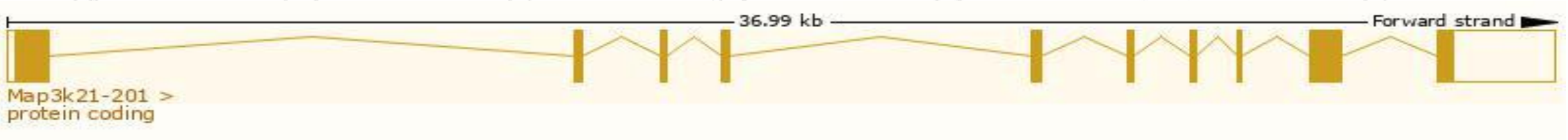
Official Symbol	Map3k21 provided by MGI
Official Full Name	mitogen-activated protein kinase kinase kinase 21 provided by MGI
Primary source	MGI:MGI:2385307
See related	Ensembl:ENSMUSG000000031853
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	MIk4, mKIAA1804
Expression	Broad expression in colon adult (RPKM 9.7), large intestine adult (RPKM 6.1) and 16 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

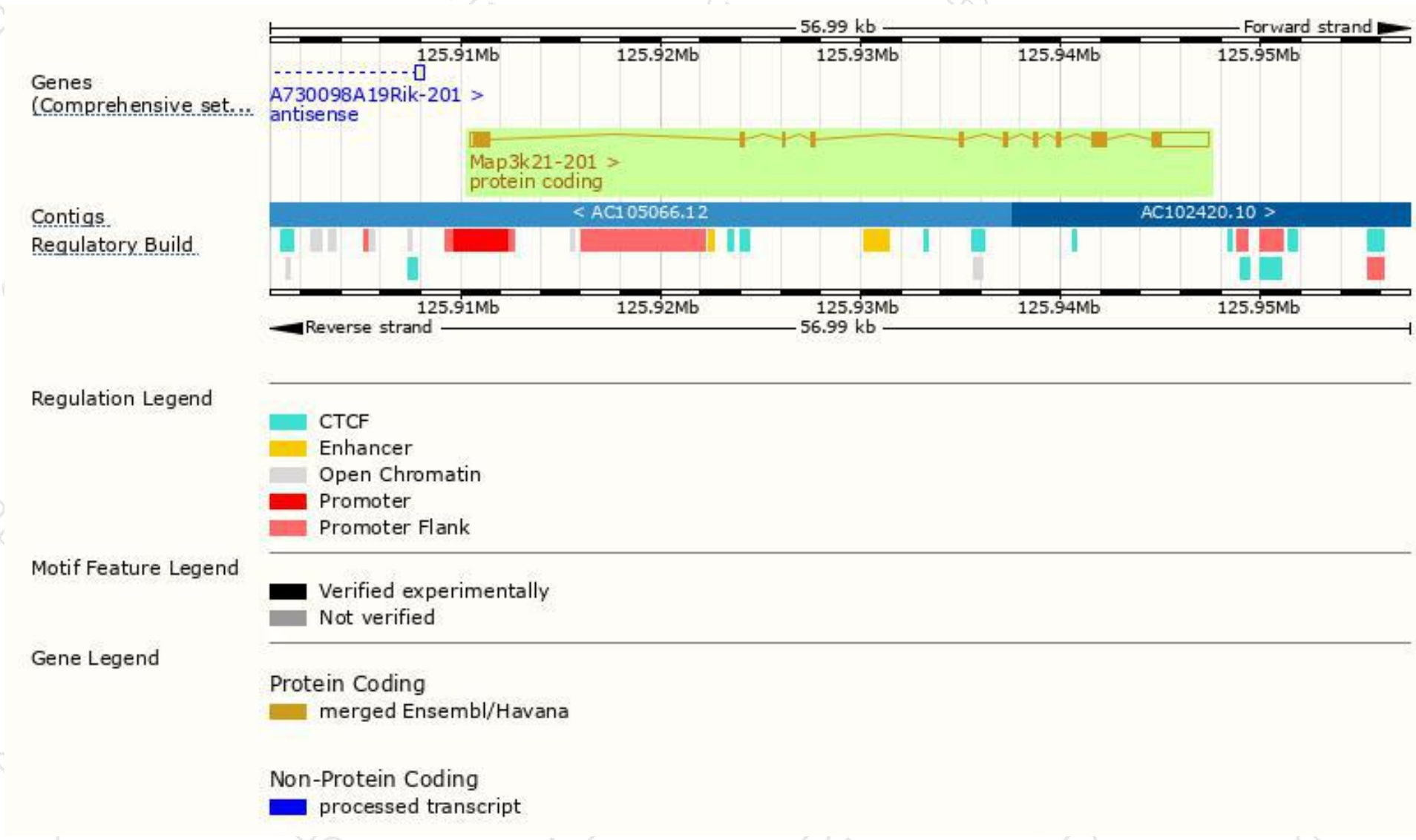
The gene has 1 transcript, and the transcript is shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Map3k21-201	ENSMUST00000034316.5	5693	1002aa	Protein coding	CCDS40519	Q8VDG6	TSL:1 GENCODE basic APPRIS P1

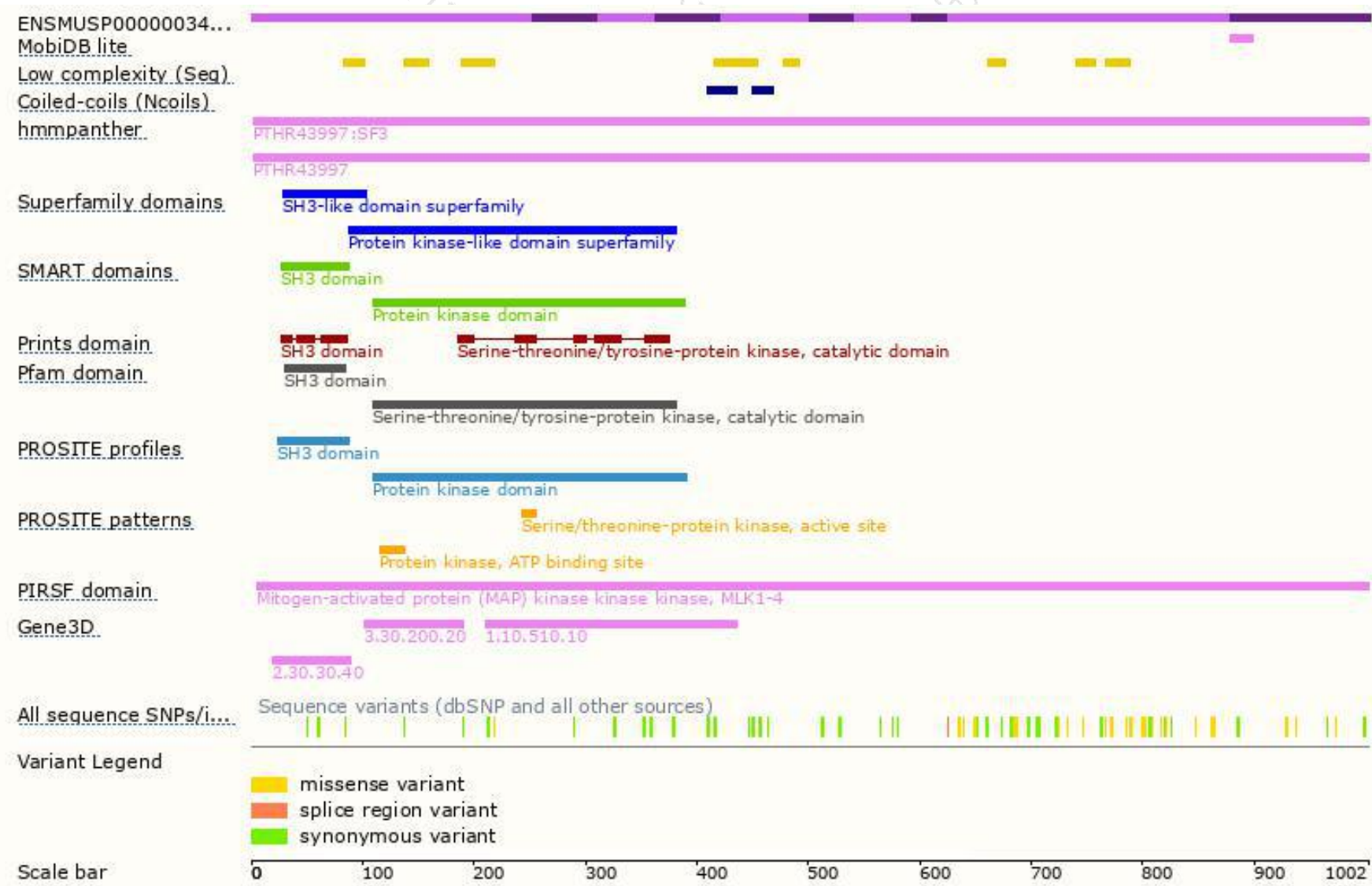
The strategy is based on the design of *Map3k21-201* transcript, The transcription is shown below



Genomic location distribution



Protein domain



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

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