

Gosr1 Cas9-KO Strategy

Designer: Yanhua Shen

Reviewer: Xueting Zhang

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Project Overview

Project Name

Gosr1

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Gosr1* gene. The schematic diagram is as follows:



- The *Gosr1* gene has 2 transcripts. According to the structure of *Gosr1* gene, exon2-exon4 of *Gosr1-201* (ENSMUST00000010536.8) transcript is recommended as the knockout region. The region contains 317bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Gosr1* gene. The brief process is as follows: CRISPR/Cas9 system

- The *Gosr1* gene is located on the Chr11. 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)

Gosr1 golgi SNAP receptor complex member 1 [*Mus musculus* (house mouse)]

Gene ID: 53334, updated on 10-Oct-2019

Summary



Official Symbol	Gosr1 provided by MGI
Official Full Name	golgi SNAP receptor complex member 1 provided by MGI
Primary source	MGI:MGI:1858260
See related	Ensembl:ENSMUSG00000010392
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	GS28; GOSRI; GOS-28; AI414660; AI426320; BB145494
Expression	Ubiquitous expression in kidney adult (RPKM 9.6), placenta adult (RPKM 9.5) and 28 other tissues See more
Orthologs	human all

Genomic context



Location: 11; 11 B5

Exon count: 9

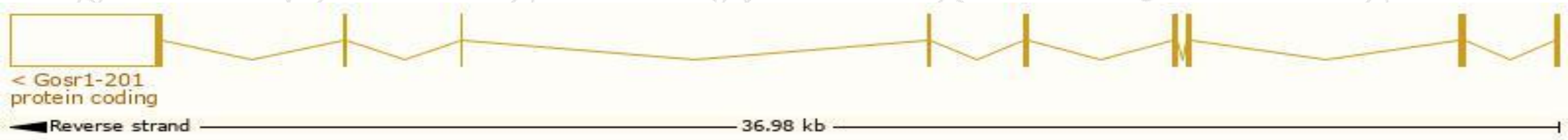
See Gosr1 in [Genome Data Viewer](#)

Transcript information (Ensembl)

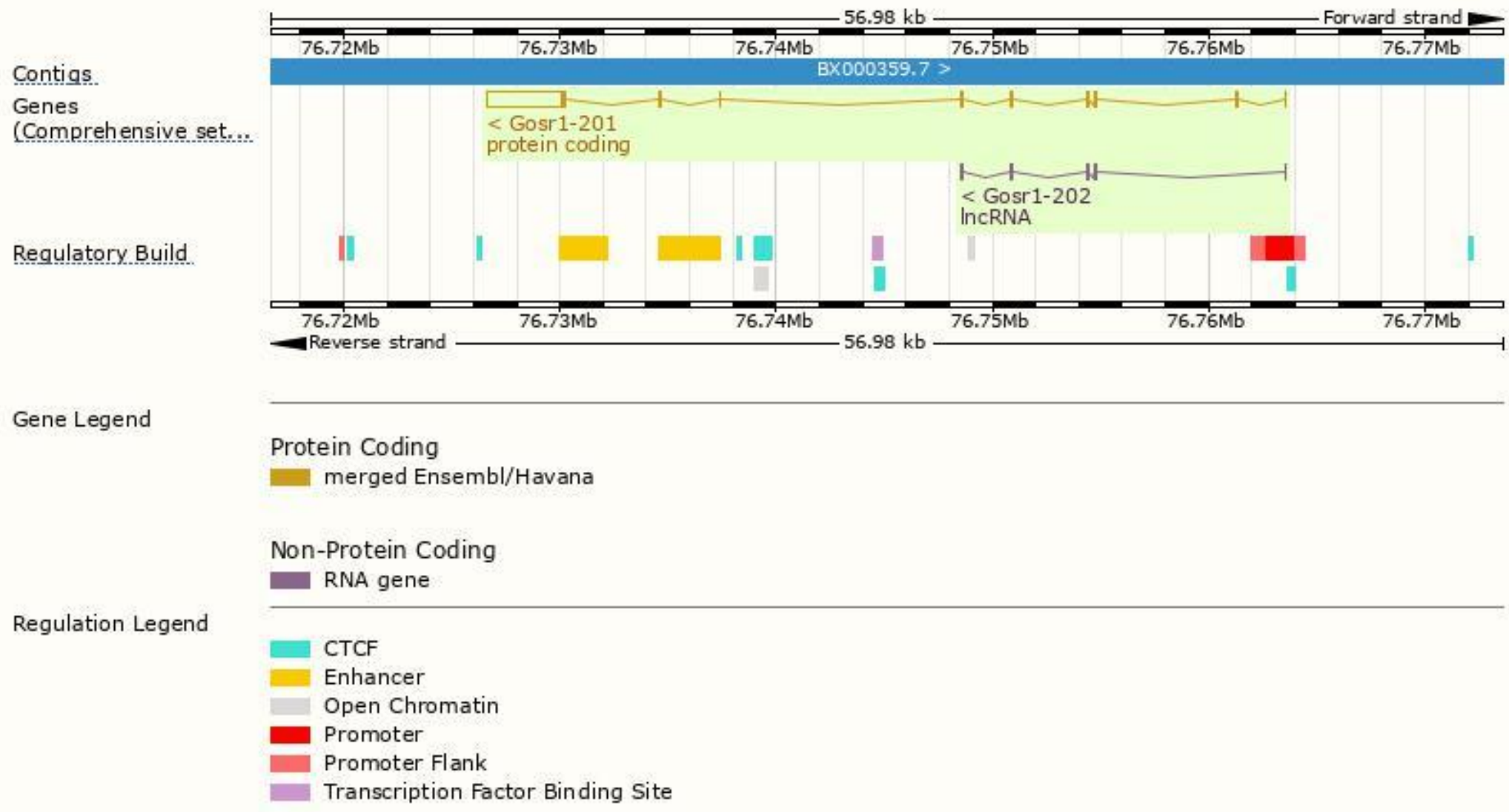
The gene has 2 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Gosr1-201	ENSMUST00000010536.8	4289	250aa	Protein coding	CCDS25070	Q88630	TSL:1 GENCODE basic APPRIS P1
Gosr1-202	ENSMUST00000137767.1	411	No protein	lncRNA	-	-	TSL:3

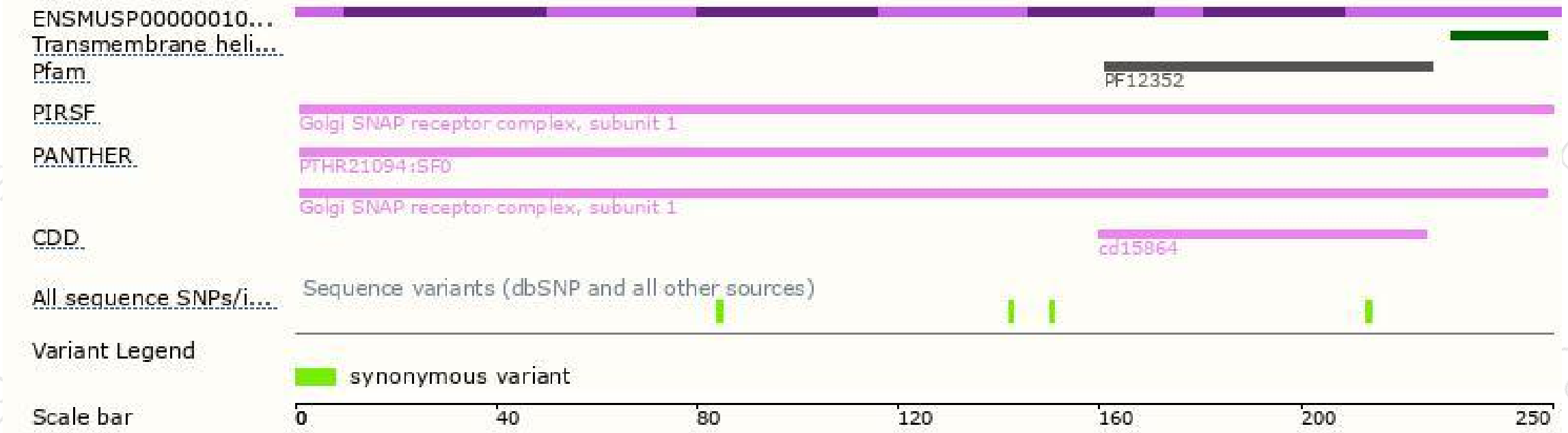
The strategy is based on the design of *Gosr1-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

Tel: 400-9660890

