

Senp8 Cas9-KO Strategy

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Design Date: 2019-09-25

Project Overview

Project Name

Senp8

Project type

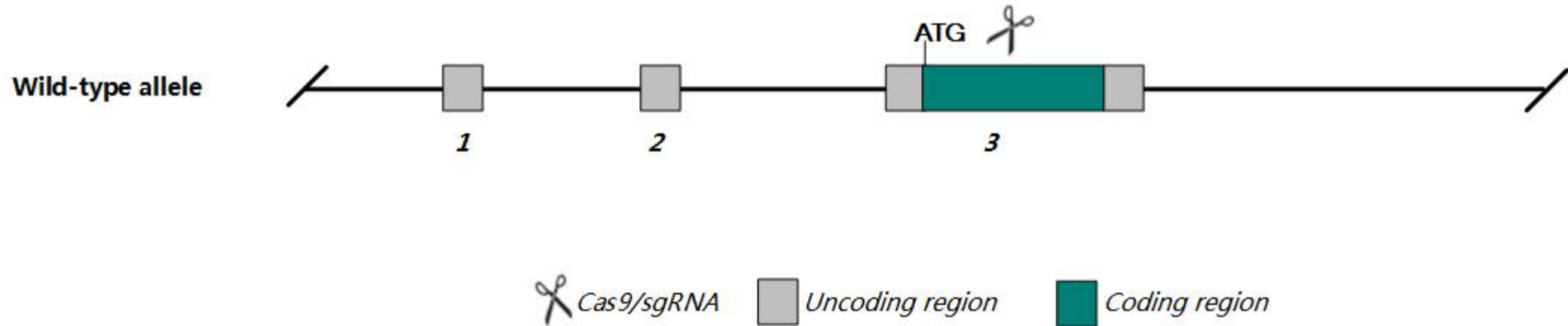
Cas9-KO

Strain background

C57BL/6N

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Senp8* gene. The schematic diagram is as follows:



- In this project we use CRISPR/Cas9 technology to modify *Senp8* gene. The brief process is as follows: sgRNA was transcribed in vitro. Cas9 and sgRNA were microinjected into the fertilized eggs of C57BL/6N mice. Fertilized eggs were transplanted to obtain positive F0 mice which were confirmed by PCR and sequencing. A stable F1 generation mouse model was obtained by mating positive F0 generation mice with C57BL/6N mice.

- The *Senp8* gene is located on the Chr9, 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)

Senp8 SUMO/sentrin specific peptidase 8 [*Mus musculus* (house mouse)]

Gene ID: 71599, updated on 12-Aug-2019

Summary

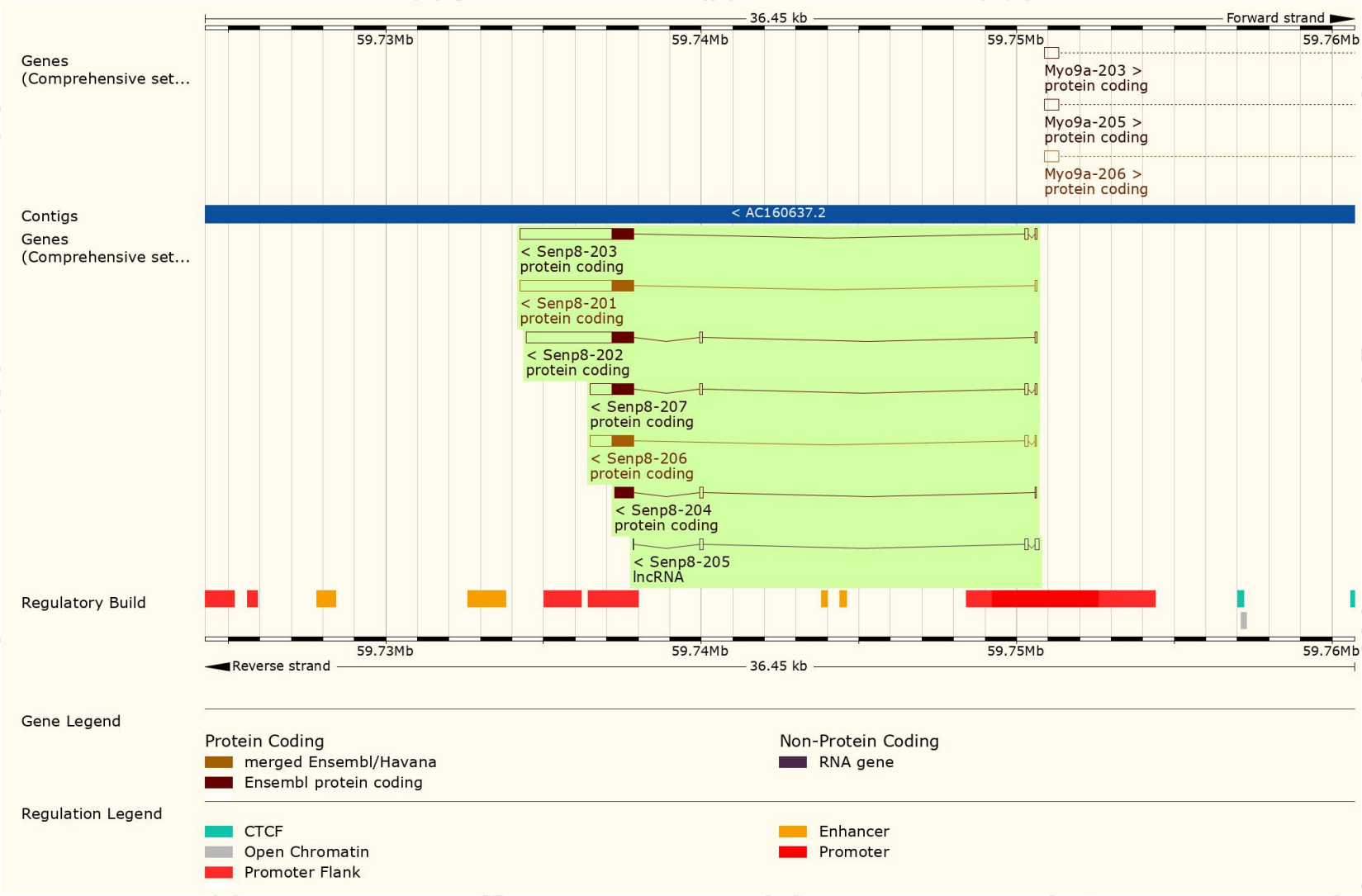
Official Symbol	Senp8 provided by MGI
Official Full Name	SUMO/sentrin specific peptidase 8 provided by MGI
Primary source	MGI:MGI:1918849
See related	Ensembl:ENSMUSG000000051705
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	Den1; Nedp1; Prsc2; AU020827; 9130010J17Rik
Expression	Ubiquitous expression in CNS E11.5 (RPKM 2.5), placenta adult (RPKM 1.9) and 27 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

The gene has 7 transcripts,all transcripts are shown below:

Name ▲	Transcript ID ▲	bp ▲	Protein ▲	Biotype ▲	CCDS ▲	UniProt ▲	Flags ▲
Senp8-201	ENSMUST000000051039.4	3682	221aa	Protein coding	CCDS23254	Q9D2Z4	TSL:1 Gencode basic APPRIS P3
Senp8-202	ENSMUST00000163586.8	3570	221aa	Protein coding	CCDS23254	A0A0R4J234 Q9D2Z4	TSL:1 Gencode basic APPRIS P3
Senp8-203	ENSMUST00000177963.7	3792	221aa	Protein coding	CCDS23254	Q9D2Z4	TSL:1 Gencode basic APPRIS P3
Senp8-204	ENSMUST00000213257.1	764	190aa	Protein coding	-	A0A1L1ST73	CDS 3' incomplete TSL:2
Senp8-205	ENSMUST00000216045.1	392	No protein	lncRNA	-	-	TSL:5
Senp8-206	ENSMUST00000216329.1	1559	234aa	Protein coding	CCDS52819	A0A1L1SRH8	TSL:1 Gencode basic APPRIS ALT2
Senp8-207	ENSMUST00000217093.1	1663	221aa	Protein coding	CCDS23254	Q9D2Z4	TSL:1 Gencode basic APPRIS P3

Genomic location distribution



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

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