

Usp30 Cas9-KO Strategy

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Project Overview

Project Name

Usp30

Project type

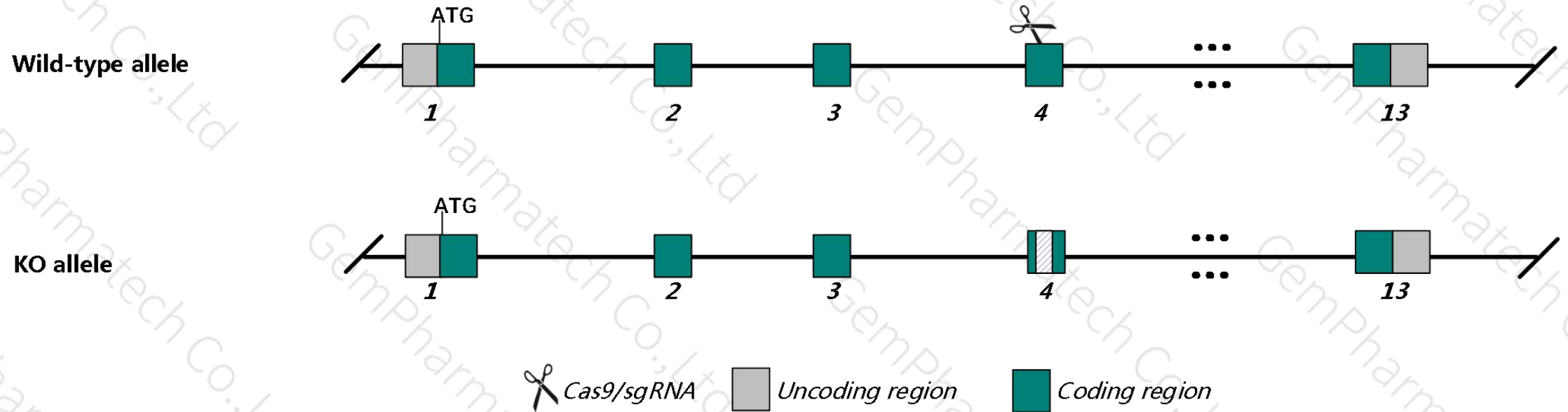
Cas9-KO

Strain background

C57BL/6N

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Usp30* gene. The schematic diagram is as follows:



- In this project we use CRISPR/Cas9 technology to modify *Usp30* 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 *Usp30* gene is located on the Chr5. 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)

Usp30 ubiquitin specific peptidase 30 [*Mus musculus* (house mouse)]

Gene ID: 100756, updated on 12-Aug-2019

Summary

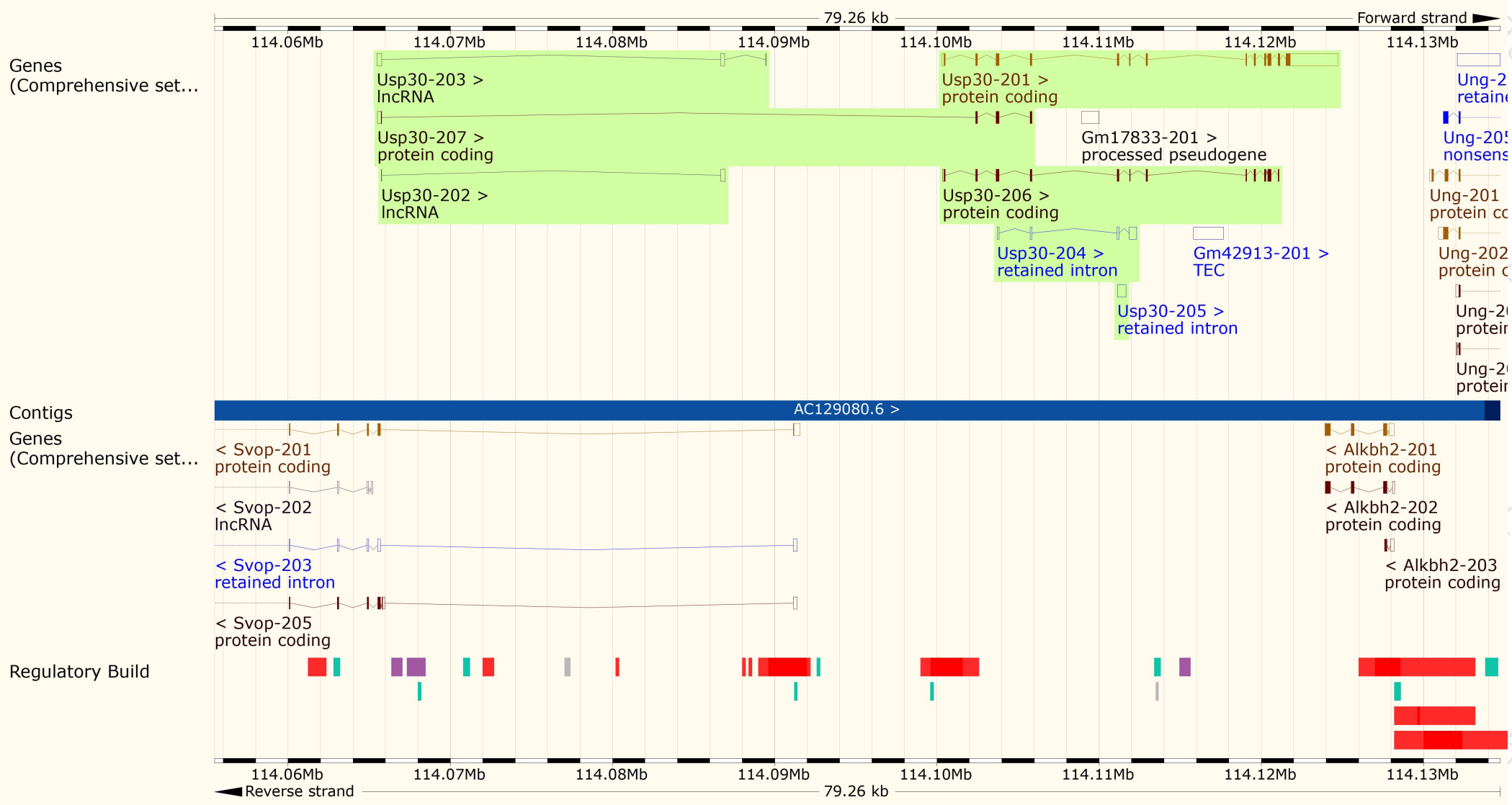
Official Symbol	Usp30 provided by MGI
Official Full Name	ubiquitin specific peptidase 30 provided by MGI
Primary source	MGI:MGI:2140991
See related	Ensembl:ENSMUSG000000029592
Gene type	protein coding
RefSeq status	PROVISIONAL
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	AI851327; D5Ert483e; 6330590F17Rik
Expression	Ubiquitous expression in adrenal adult (RPKM 14.2), ovary adult (RPKM 13.5) and 28 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
Usp30-201	ENSMUST00000031588.11	4604	517aa	Protein coding	CCDS19558	Q3UN04	TSL:1 GENCODE basic APPRIS P1
Usp30-206	ENSMUST00000200119.2	1303	410aa	Protein coding	-	A0A0G2JDF7	CDS 3' incomplete TSL:5
Usp30-207	ENSMUST00000202603.3	652	144aa	Protein coding	-	A0A0J9YV73	CDS 3' incomplete TSL:5
Usp30-204	ENSMUST00000196574.1	768	No protein	Retained intron	-	-	TSL:3
Usp30-205	ENSMUST00000198457.1	520	No protein	Retained intron	-	-	TSL:NA
Usp30-203	ENSMUST00000162506.1	588	No protein	lncRNA	-	-	TSL:3
Usp30-202	ENSMUST00000160164.1	305	No protein	lncRNA	-	-	TSL:5

Genomic location distribution



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

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