Ints6l Cas9-KO Strategy

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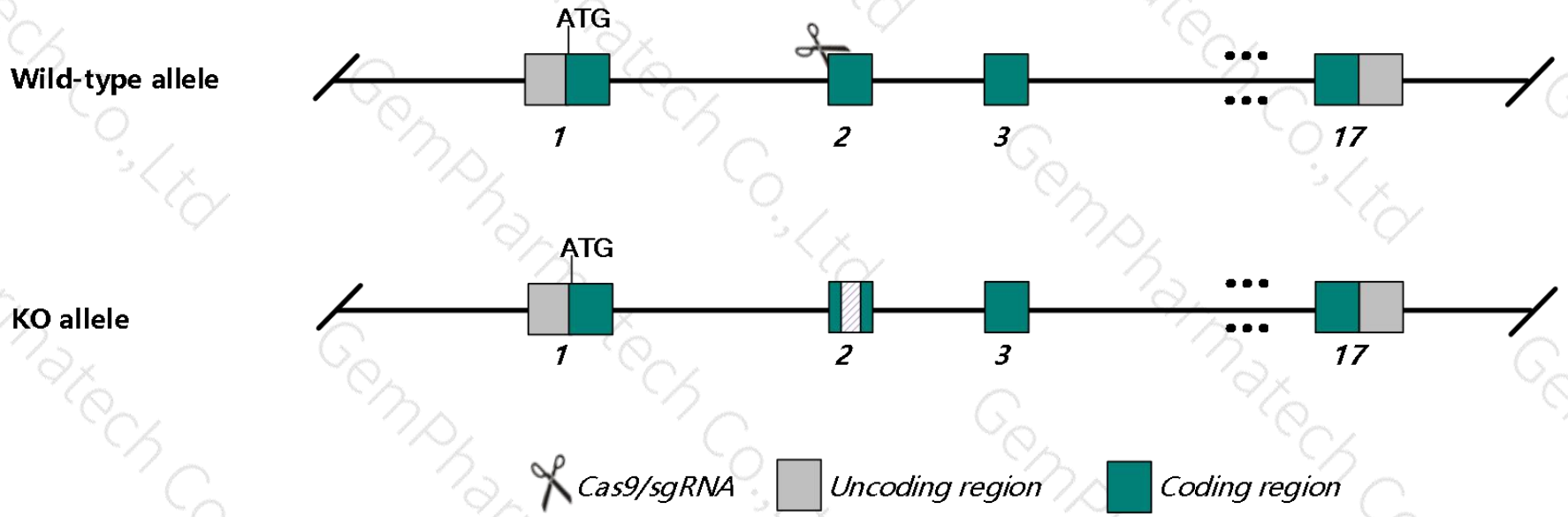
Project Overview

Project Name	***Ints6l***
Project type	**Cas9-KO**
Strain background	**C57BL/6N**

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Ints6l* gene. The schematic diagram is as follows:



Technical routes

- In this project we use CRISPR/Cas9 technology to modify *Ints6l* 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.

Notice

- The *Ints6l* gene is located on the ChrX. 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）

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Ints6l integrator complex subunit 6 like [*Mus musculus* (house mouse)]

Gene ID: 236790, updated on 12-Aug-2019

Summary

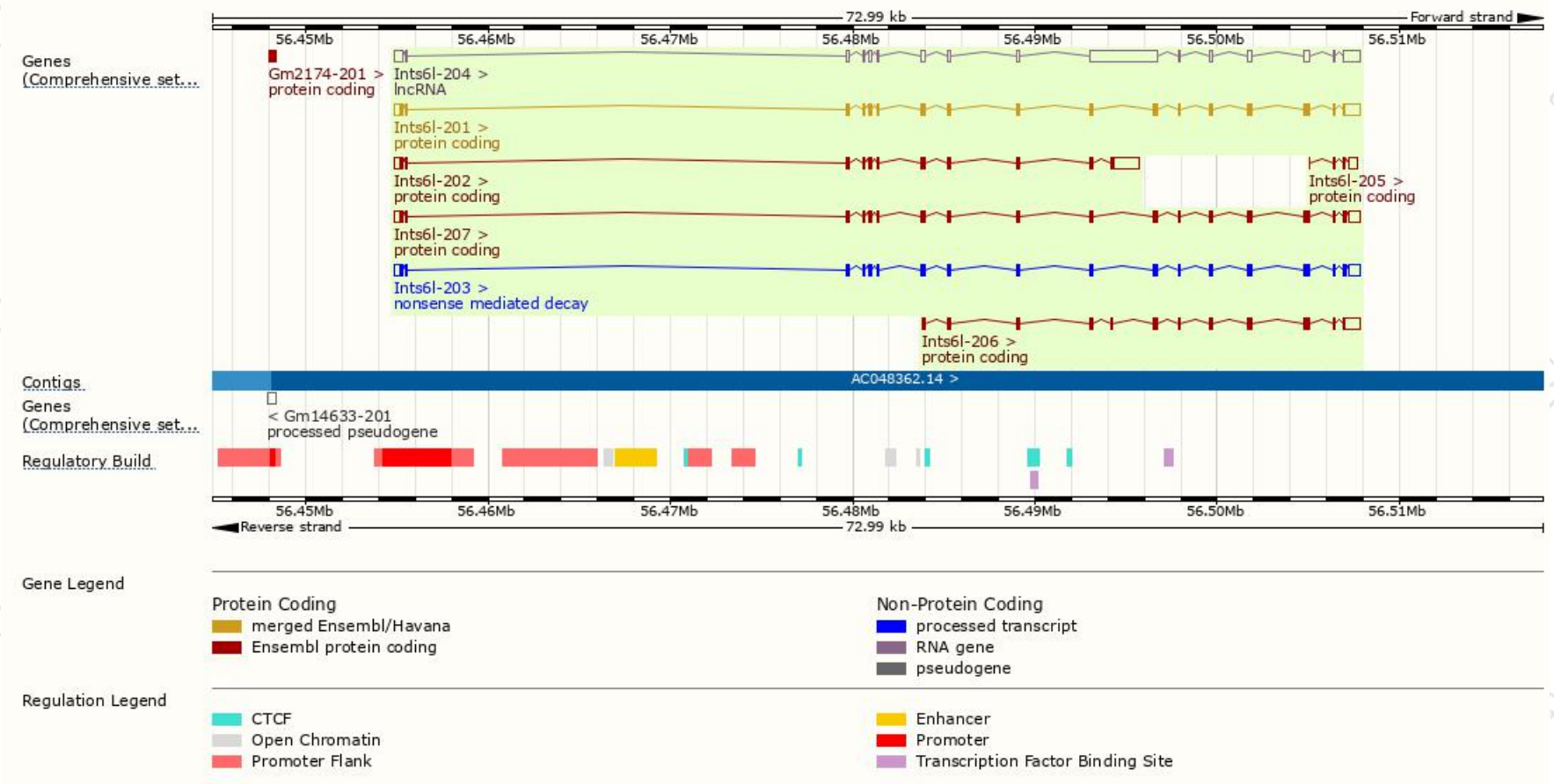
Official Symbol	Ints6l provided by MGI
Official Full Name	integrator complex subunit 6 like provided by MGI
Primary source	MGI:MGI:2442593
See related	Ensembl:ENSMUSG00000035967
Gene type	protein coding
RefSeq status	VALIDATED
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	Ddx26b; D130066O12; 4930535D10Rik; 6330505F04Rik
Expression	Broad expression in liver E14 (RPKM 32.1), liver E14.5 (RPKM 25.2) and 22 other tissues See more

Transcript information（Ensembl）

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

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Ints6l-201	ENSMUST00000039374.8	3766	861aa	Protein coding	CCDS30145	Q8BND4	TSL:1 GENCODE basic APPRIS P1
Ints6l-207	ENSMUST00000186445.6	3608	861aa	Protein coding	CCDS30145	Q8BND4	TSL:2 GENCODE basic APPRIS P1
Ints6l-202	ENSMUST00000101553.8	3201	489aa	Protein coding	-	E9PXU1	TSL:2 GENCODE basic
Ints6l-206	ENSMUST00000143142.7	2766	638aa	Protein coding	-	F6WNG1	CDS 5' incomplete TSL:5
Ints6l-205	ENSMUST00000142624.1	719	78aa	Protein coding	-	F6RIR5	CDS 5' incomplete TSL:2
Ints6l-203	ENSMUST00000132428.7	3611	861aa	Nonsense mediated decay	CCDS30145	Q8BND4	TSL:2
Ints6l-204	ENSMUST00000134138.1	7170	No protein	lncRNA	-	-	TSL:5

Genomic location distribution



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

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