

Il1f6 Cas9-KO Strategy

Designer:

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Design Date:

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Project Overview

Project Name

Il1f6

Project type

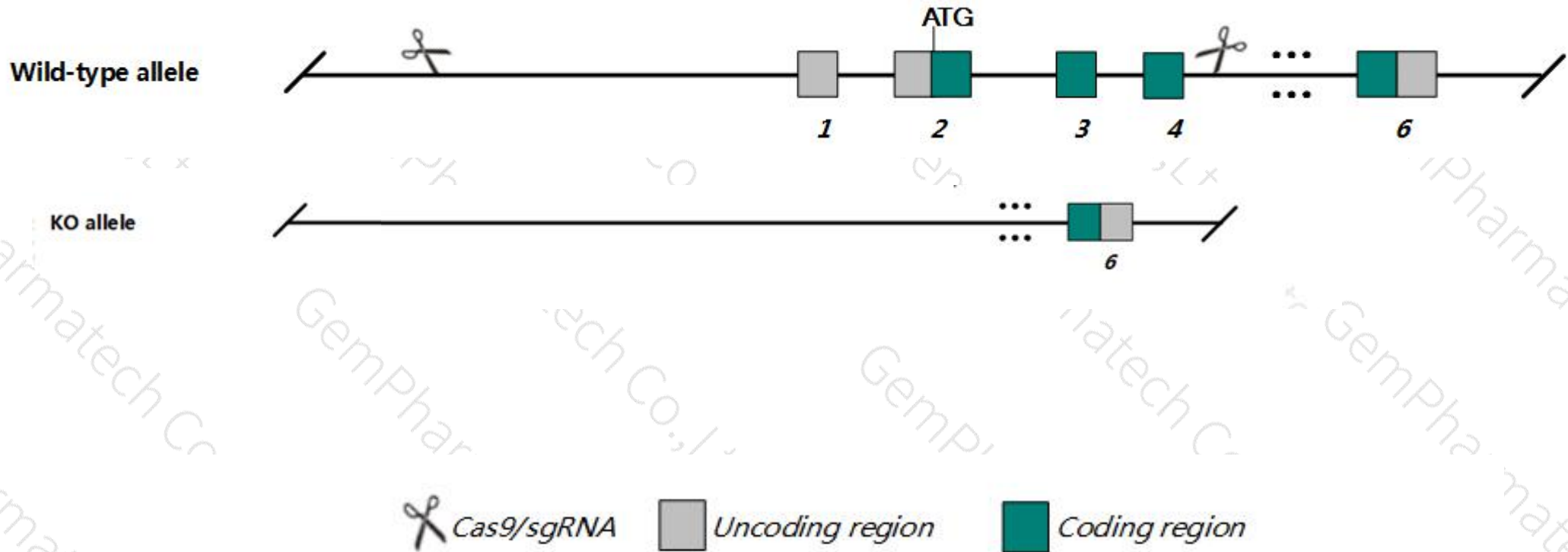
Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Il1f6* gene. The schematic diagram is as follows:



- The *Il1f6* gene has 2 transcripts. According to the structure of *Il1f6* gene, predicte promoter region and exon1-4 of Il1f6-201 (ENSMUST00000028361.4) transcript is recommended as the knockout region. The region contains the most coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Il1f6* gene. The brief process is as follows: CRISPR/Cas9 system v

- The *Il1f6* gene is located on the Chr2. 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)

Il1f6 interleukin 1 family, member 6 [Mus musculus (house mouse)]

Gene ID: 54448, updated on 31-Jan-2019

Summary



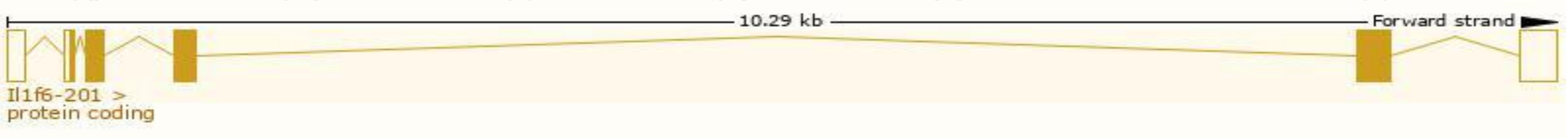
Official Symbol	Il1f6 provided by MGI
Official Full Name	interleukin 1 family, member 6 provided by MGI
Primary source	MGI:MGI:1859324
See related	Ensembl:ENSMUSG00000026984
Gene type	protein coding
RefSeq status	PROVISIONAL
Organism	Mus musculus
Lineage	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Myomorpha; Muroidea; Muridae; Murinae; Mus; Mus
Also known as	Fil1, IL-1H1, IL1RP2, Il1f9, Il36a
Expression	Biased expression in stomach adult (RPKM 1.4), lung adult (RPKM 1.3) and 3 other tissues See more
Orthologs	human all

Transcript information (Ensembl)

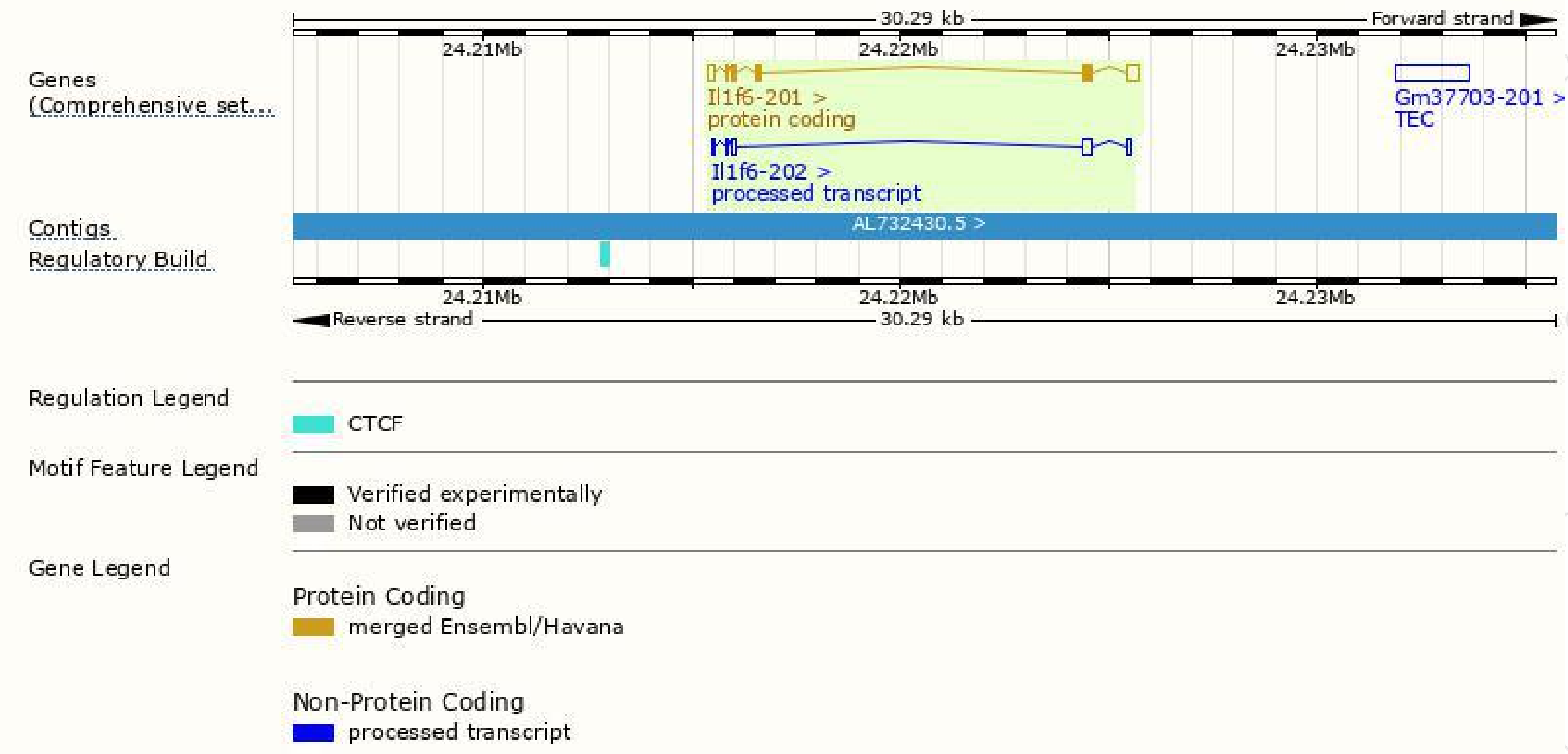
The gene has 2 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
II1f6-201	ENSMUST00000028361.4	883	160aa	Protein coding	CCDS15734	Q149U6 Q9JLA2	TSL:1 GENCODE basic APPRIS P1
II1f6-202	ENSMUST00000144442.1	479	No protein	Processed transcript	-	-	TSL:1

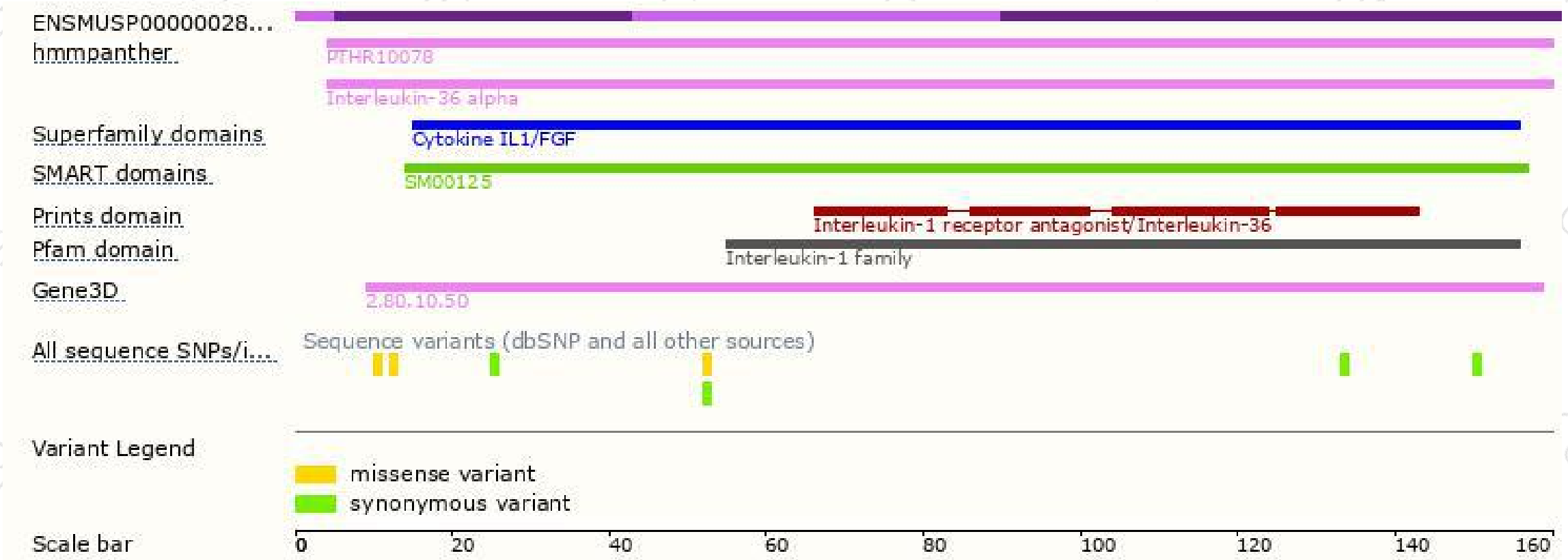
The strategy is based on the design of *Il1f6-201* transcript,The transcription is shown below



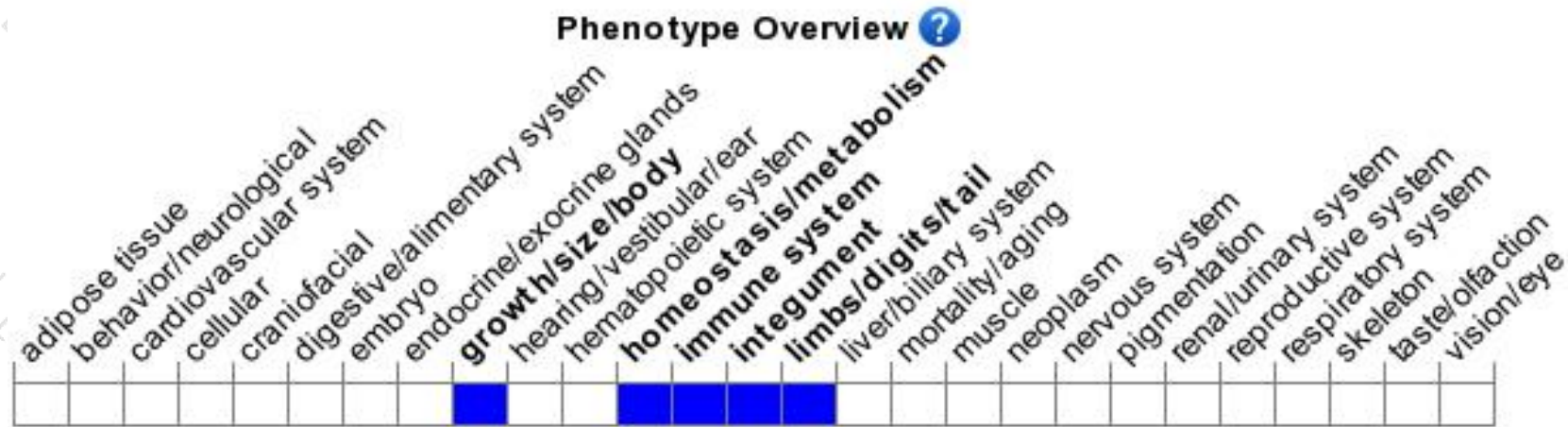
Genomic location distribution



Protein domain



Mouse phenotype description(MGI)



Phenotypes affected by the gene are marked in blue. Data quoted from MGI database(<http://www.informatics.jax.org/>).

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

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