

***Zfp326* Cas9-KO Strategy**

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Project Overview

Project Name

Zfp326

Project type

Cas9-KO

Strain background

C57BL/6JGpt

Knockout strategy

This model will use CRISPR/Cas9 technology to edit the *Zfp326* gene. The schematic diagram is as follows:



- The *Zfp326* gene has 9 transcripts. According to the structure of *Zfp326* gene, exon3-exon5 of *Zfp326-201* (ENSMUST00000031227.10) transcript is recommended as the knockout region. The region contains 554bp coding sequence. Knock out the region will result in disruption of protein function.
- In this project we use CRISPR/Cas9 technology to modify *Zfp326* gene. The brief process is as follows: CRISPR/Cas9 system

- Transcript *Zfp326*-207 may not be affected.
- The *Zfp326* 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)

Zfp326 zinc finger protein 326 [*Mus musculus* (house mouse)]

Gene ID: 54367, updated on 12-Aug-2019

Summary

- Official Symbol** Zfp326 provided by [MGI](#)
- Official Full Name** zinc finger protein 326 provided by [MGI](#)
- Primary source** [MGI:MGI:1927246](#)
- See related** [Ensembl:ENSMUSG00000029290](#)
- 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** ZAN75; Znf326; 5730470H14Rik
- Expression** Broad expression in CNS E11.5 (RPKM 13.2), CNS E14 (RPKM 9.1) and 25 other tissues [See more](#)
- Orthologs** [human](#) [all](#)

Genomic context

Location: 5; 5 E5 [See Zfp326 in Genome Data Viewer](#)

Exon count: 14

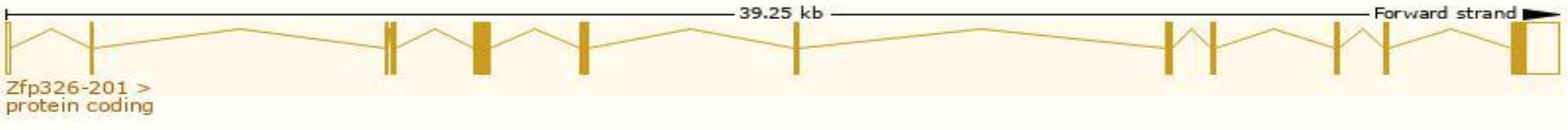
Annotation release	Status	Assembly	Chr	Location
108	current	GRCm38.p6 (GCF_000001635.26)	5	NC_000071.6 (105876556..105915818)
Build 37.2	previous assembly	MGSCv37 (GCF_000001635.18)	5	NC_000071.5 (106305587..106344837)

Transcript information (Ensembl)

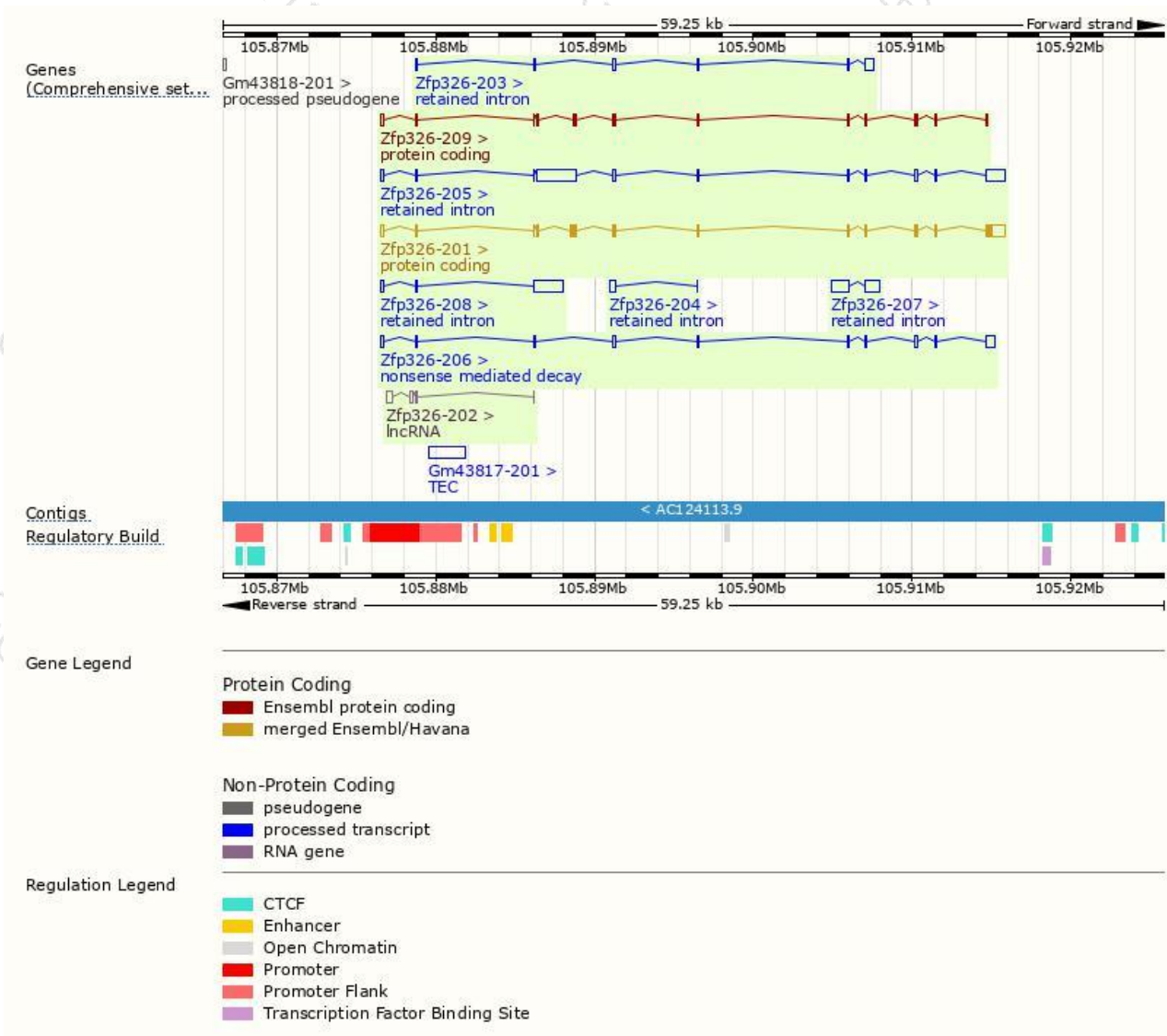
The gene has 9 transcripts,all transcripts are shown below:

Name	Transcript ID	bp	Protein	Biotype	CCDS	UniProt	Flags
Zfp326-201	ENSMUST00000031227.10	2667	580aa	Protein coding	CCDS19496	A0A0R4J098	TSL:1 GENCODE basic APPRIS P1
Zfp326-209	ENSMUST00000150440.7	1365	415aa	Protein coding	-	D3YXQ7	CDS 3' incomplete TSL:5
Zfp326-206	ENSMUST00000138615.7	1554	53aa	Nonsense mediated decay	-	D6RG92	TSL:5
Zfp326-205	ENSMUST00000136558.7	4672	No protein	Retained intron	-	-	TSL:2
Zfp326-207	ENSMUST00000147683.1	2098	No protein	Retained intron	-	-	TSL:1
Zfp326-208	ENSMUST00000150109.7	2021	No protein	Retained intron	-	-	TSL:2
Zfp326-203	ENSMUST00000135215.1	1109	No protein	Retained intron	-	-	TSL:3
Zfp326-204	ENSMUST00000135374.1	387	No protein	Retained intron	-	-	TSL:2
Zfp326-202	ENSMUST00000133155.1	477	No protein	lncRNA	-	-	TSL:5

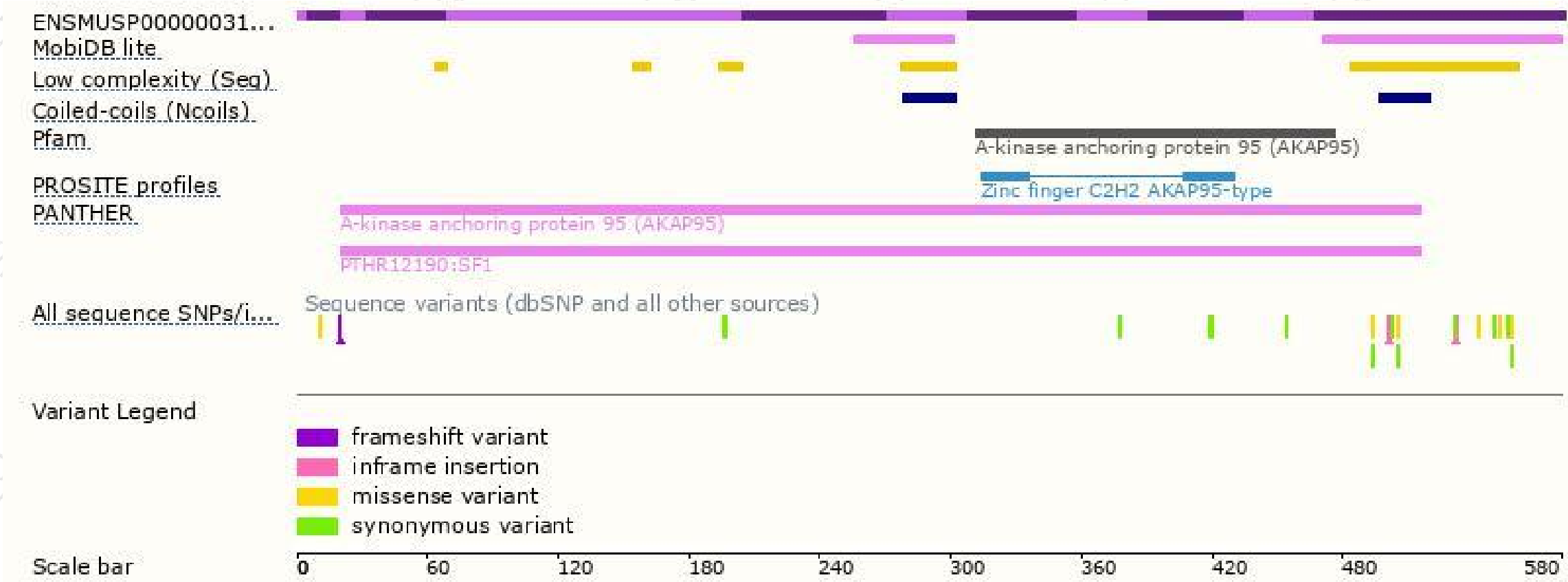
The strategy is based on the design of *Zfp326-201* transcript,The transcription is shown below



Genomic location distribution



Protein domain



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

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