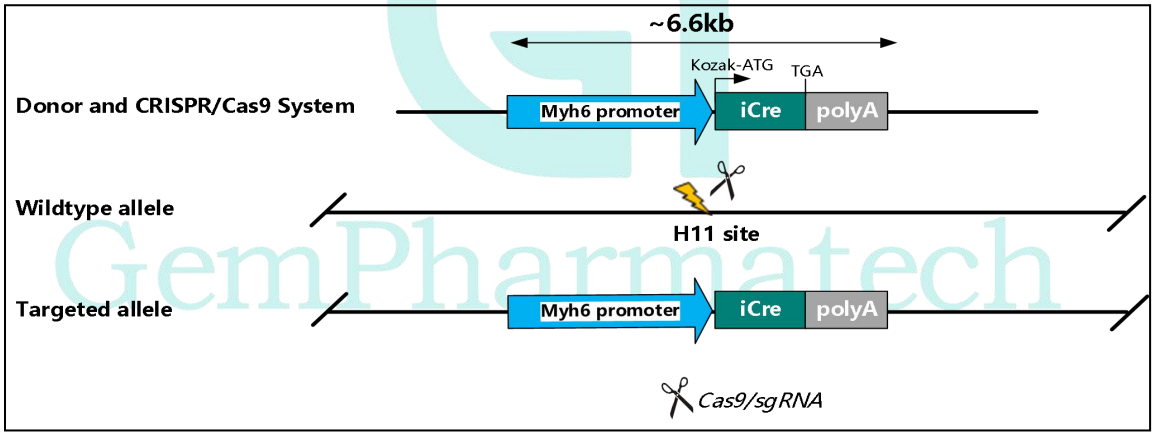
Strain information

Strain number	T004713	Strain name	B6/JGpt-H11$^{em1Cin(Myh6-iCre)}$/Gpt
Strain type	Cas9 KI	abbreviation	Myh6-Cre
background	C57BL/6	Source	GemPharmatech

一、 Application

It can be used as a Cre tool mouse for specific induction of LoxP recombination in cardiac tissues/cells.

二、 Description



This mouse strain expresses Cre recombinase under the control of the mouse Myh6 promoter, When crossed with a strain containing loxP site flanked sequence , Cre-mediated recombination results in target deletion of the gene fragment between the two LoxP in cardiac tissues/cells.

Cas9 technology was used for site-point integration to the H11 site, and the H11 site had significant advantages as the insertion site of KI:1.the transferred gene was site-point integration to the chromosome, so the passage was stable and no loss of expression was caused by passage; 2.the interference effect of adjacent sequences on the genome can be avoided; 3.the insertion of exogenous genes into this site will not damage any endogenous genes, and the growth and development of mice are normal, without affecting the phenotype and function of mice.

三、 Data

Detection method:

Rosa26-loxP-tdtomato-loxP-GFP mice expressed red fluorescence, and when mated with mice expressing cre recombinant enzyme, and the offspring expressed green fluorescence.Green fluorescence expression could be observed through frozen section, thus confirming the expression of cre protein in cardiac tissues/cells.

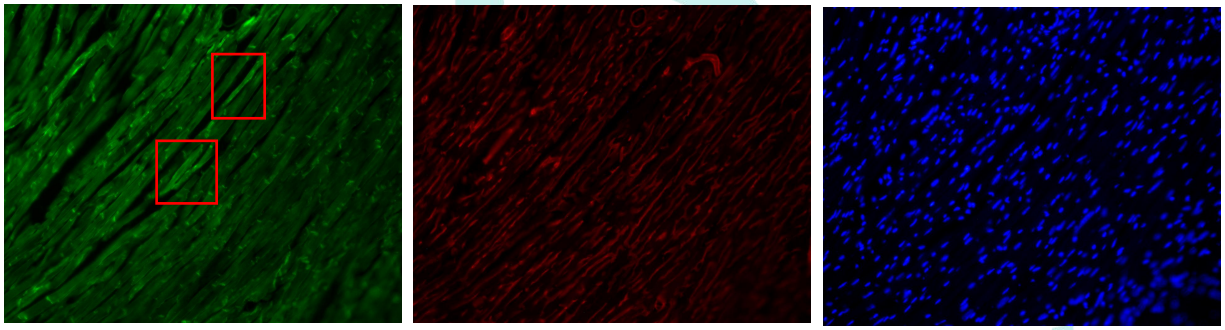
The tdTomato and stop elements in cardiac tissues/cells were removed, and the green fluorescence EGFP was expressed. Other cells that could not express cre still expressed red fluorescence.

Positive Control：（αMHC-cre）

Heart:

GFP tdTomato DAPI

T004713



Positive Control（αMHC-cre）