

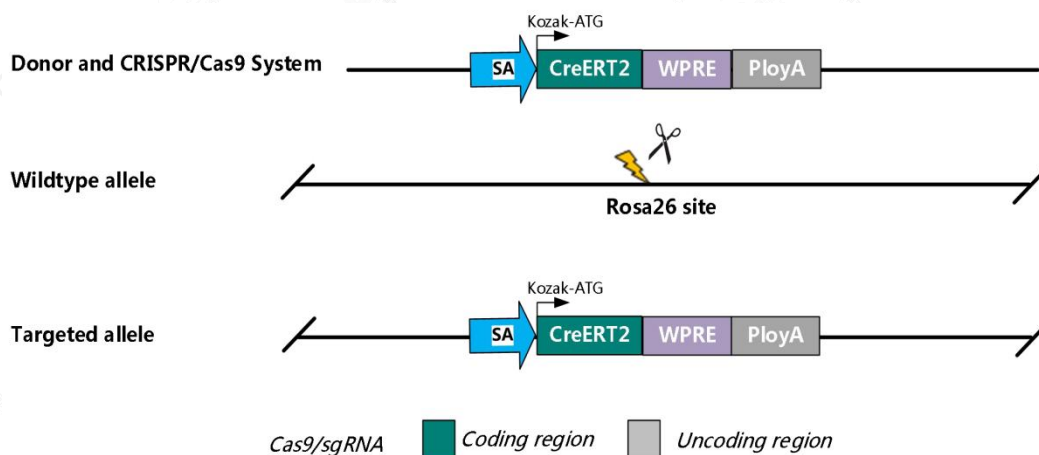
# Strain information

Strain number	T050182	Strain name	B6/JGpt-Rosa26 <sup>em1Cin</sup> (SA-CreERT2)/Gpt
Strain type	Cas9-KI	abbreviation	Rosa26-SA-CreERT2
background	C57BL/6JGpt	Source	GemPharmatech

## 一、Application

It can be used as a Cre tool mouse for systemic induction of recombinant LoxP.

## 二、Description



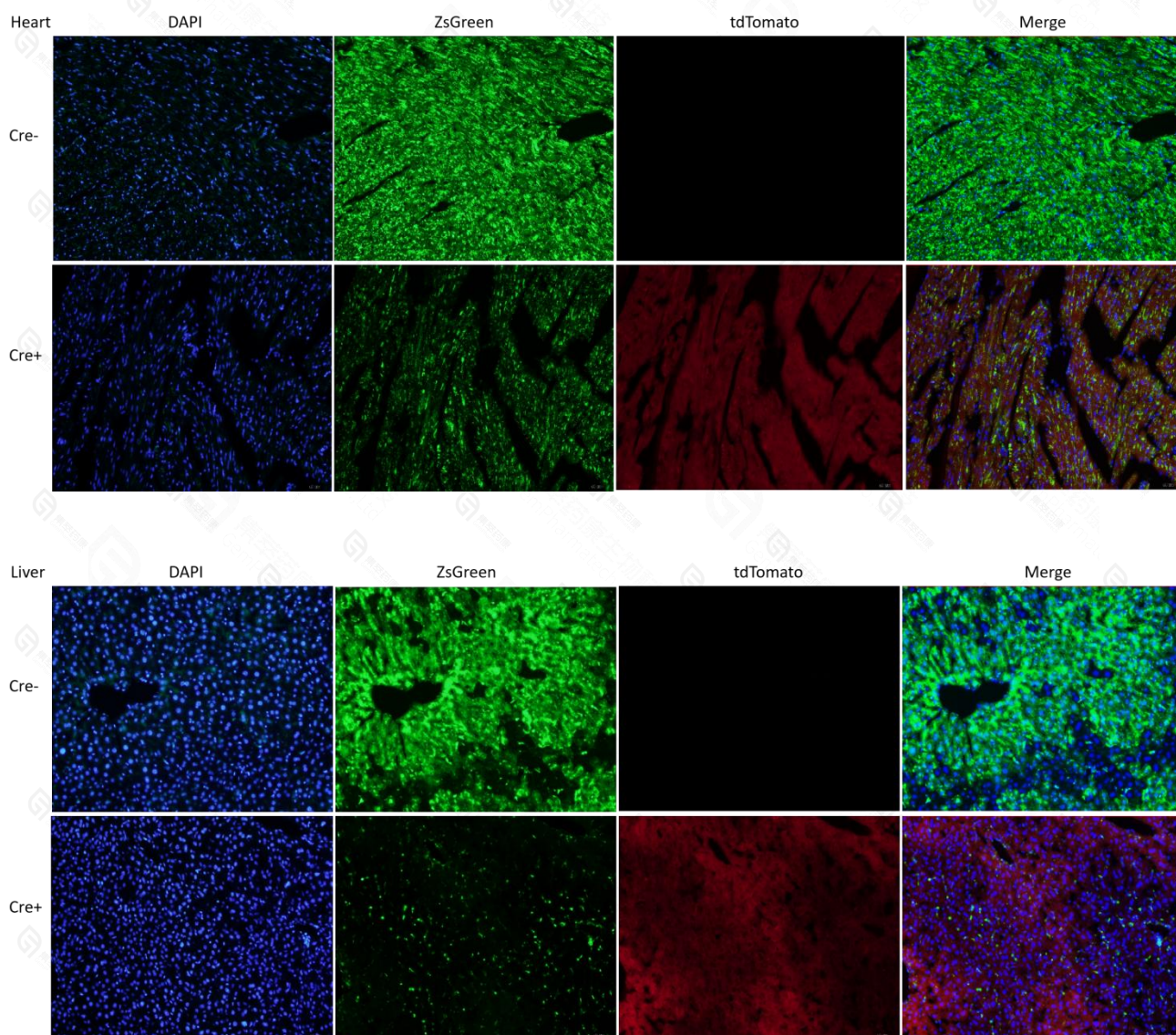
The Rosa26-SA-CreERT2 mouse model with systemic Cre expression driven by a systemic promoter was constructed and obtained by gene editing technique. The CreERT2 gene was only induced by Tomoxifen to express Cre protein activity. This model can be used as a Cre tool mouse for systemic LoxP induced recombination. For example, by deleting the flox region, the gene fragment between the two LoxP can be systematically deleted by breeding the tool mouse and the conditionally knockout model mouse.

### 三、 Data

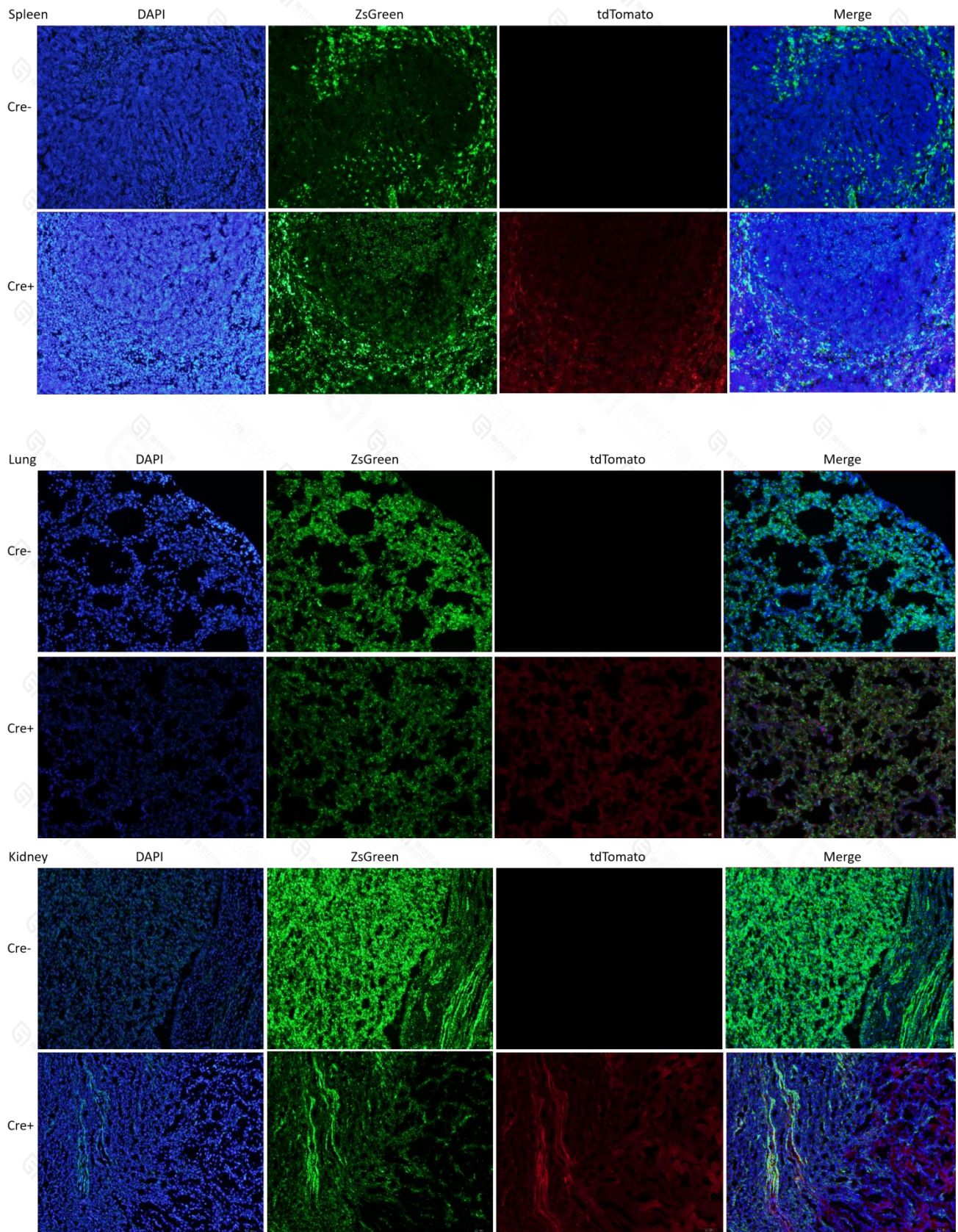
#### Detection of Cre expression

**Detection method:** The Rosa26-SA-CreERT2 mice were bred with CAG-loxp-ZsGreen-stop-loxp-tdTomato mice. CAG-loxp-ZsGreen-Stop-loxp-tdTomato mice expressed green fluorescence. When mating with mice expressing Cre recombinase, the offspring expressed red fluorescence when ZsGreen was absent in cells expressing Cre. Through frozen section observation, the red fluorescence expression could be observed, thus confirming the expression of Cre protein in various tissues of the mouse.

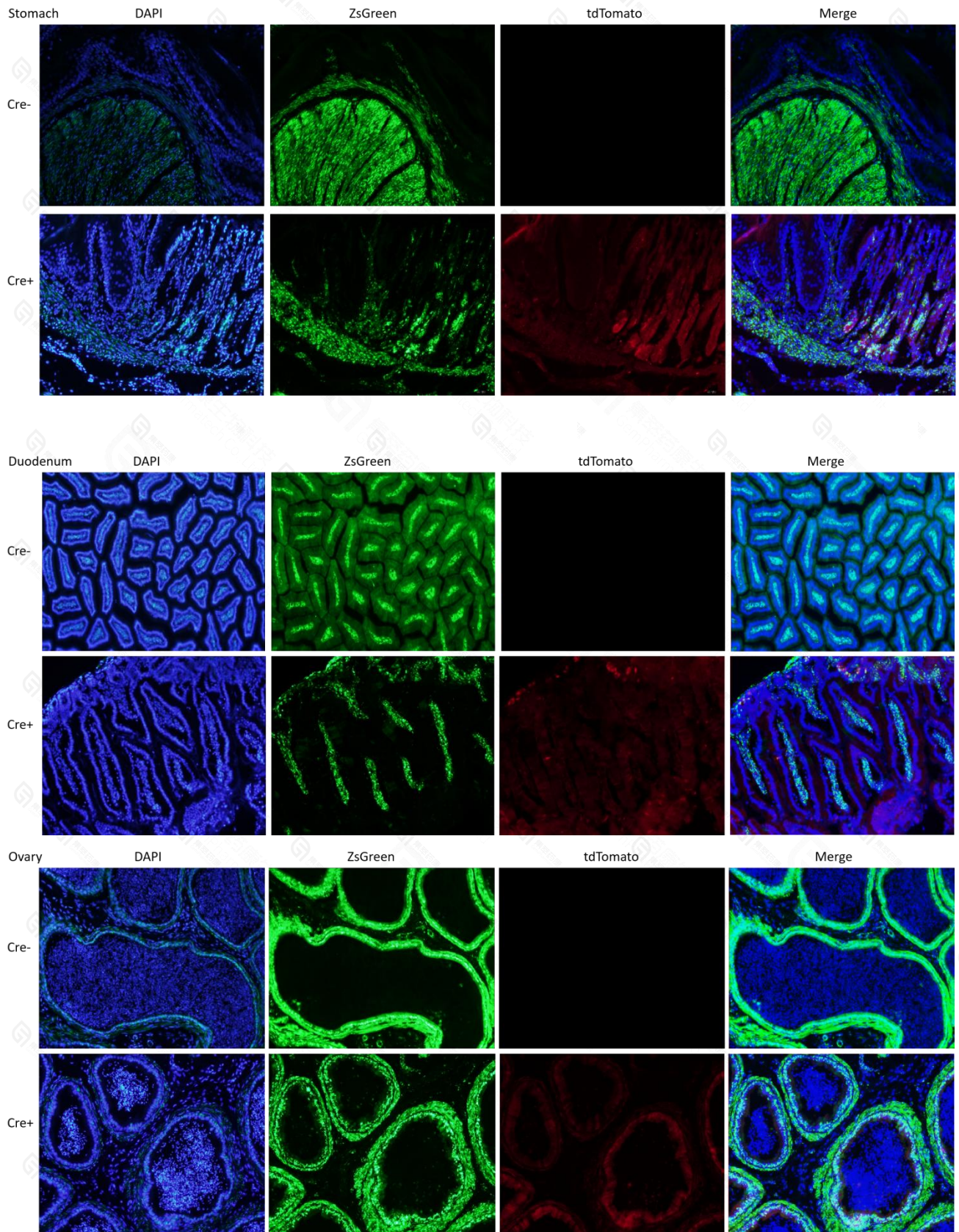
**Observations:** The Rosa26-SA-CreERT mice were bred with CAG-loxp-ZsGreen-Stop-loxp-tdTomato mice. The original ZsGreen was deleted and expressed red fluorescent tdTomato in the cells of heart, liver, spleen, lung, kidney, stomach, duodenum, brain, ovary and skeletal muscle by frozen tissue section.



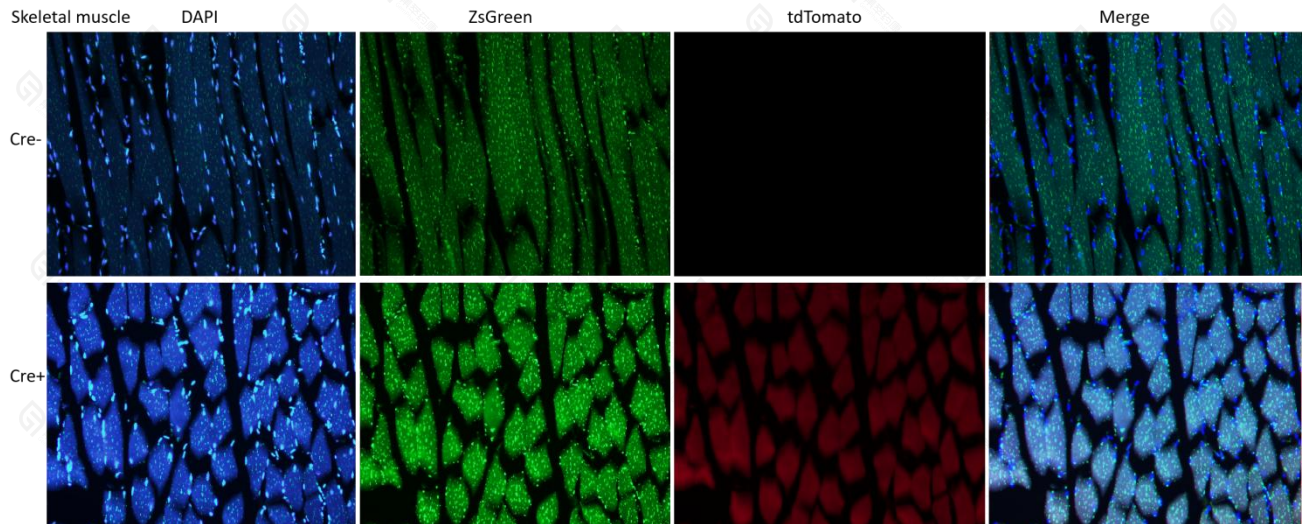












Detection of Rosa26-SA-CreERT2 mouse Cre protein expression in heart, liver, spleen, lung, kidney, stomach, duodenum, brain, ovary and skeletal muscle. Red fluorescence was observed in the tissues of CAG-loxp-ZsGreen-Stop-loxp-tdTomato and Rosa26-SA-CreERT2 progeny mice, indicating that Cre could be expressed in these detected tissues.

Note: Cre- short for the uninduced offspring of CAG-loxp-ZsGreen-Stop-loxp-tdTomato and Rosa26-SA-CreERT2; Cre+ is short for CAG-loxp-ZsGreen-Stop-loxp-tdTomato and Rosa26-SA-CreERT2 mating offspring induced mice. Above, Cre- and Cre+ are fluorescence images under 200 magnification.