

Cx3cr1-Cre

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|---------------------|---|
| Nomenclature | C57BL/6Smoc- <i>Cx3cr1</i> ^{em1(iCre)Smoc} |
| Cat. NO. | NM-KI-200079 |
| Strain State | Repository Live |

Gene Summary

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|------------------------------|-----------------------|------------------------------------|
| Gene Symbol Cx3cr1 | Synonyms | - |
| | NCBI ID | 13051 |
| | MGI ID | 1333815 |
| | Ensembl ID | ENSMUSG00000052336 |
| | Human Ortholog | CX3CR1 |

Model Description

The coding region of Cx3cr1 gene was replaced by a iCre expression cassette via CRISPR/Cas9 mediated recombination.

Research Application: Cre recombinase tool; Cx3cr1 exclusively expressed in the mononuclear phagocyte system including microglia, as well as hepatic kupffer cells and alveolar macrophages. When crossed with a strain carrying a gene flanked by loxP sites, the flanked gene will be removed in cells expressing cre. This strain may be useful for studying lung and liver fibrosis.

*Literature published using this strain should indicate: Cx3cr1-Cre mice (Cat. NO. NM-KI-200079) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

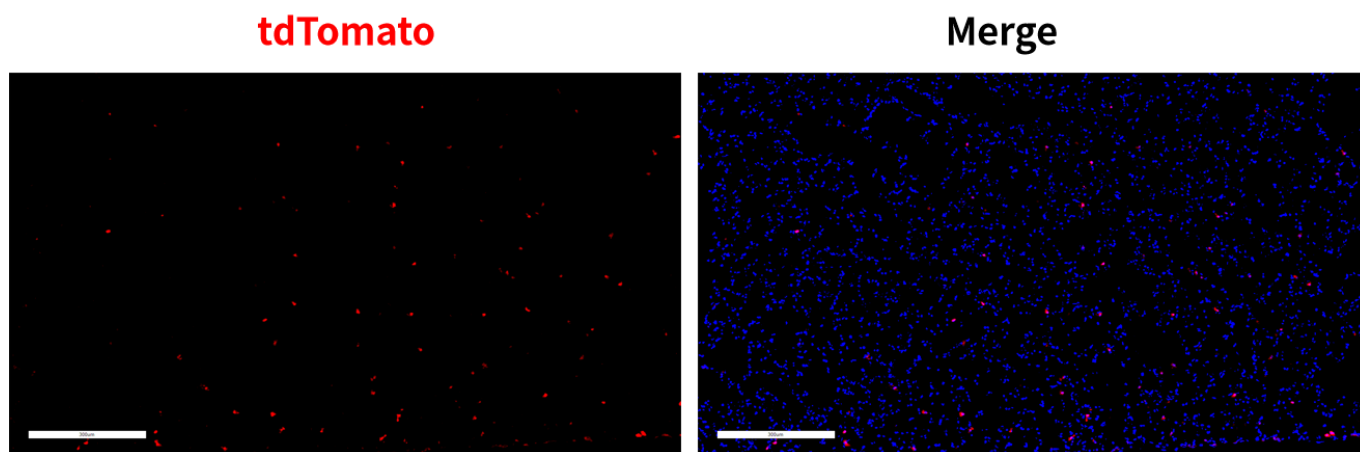


Fig. 1 Cre-mediated recombination in the lung of *Cx3cr1cre/+*; *Rosa26tdTomato/+* mouse. TdTomato(red) expression can be detected in the pulmonary macrophage of *Cx3cr1cre/+*; *Rosa26tdTomato/+* mouse.

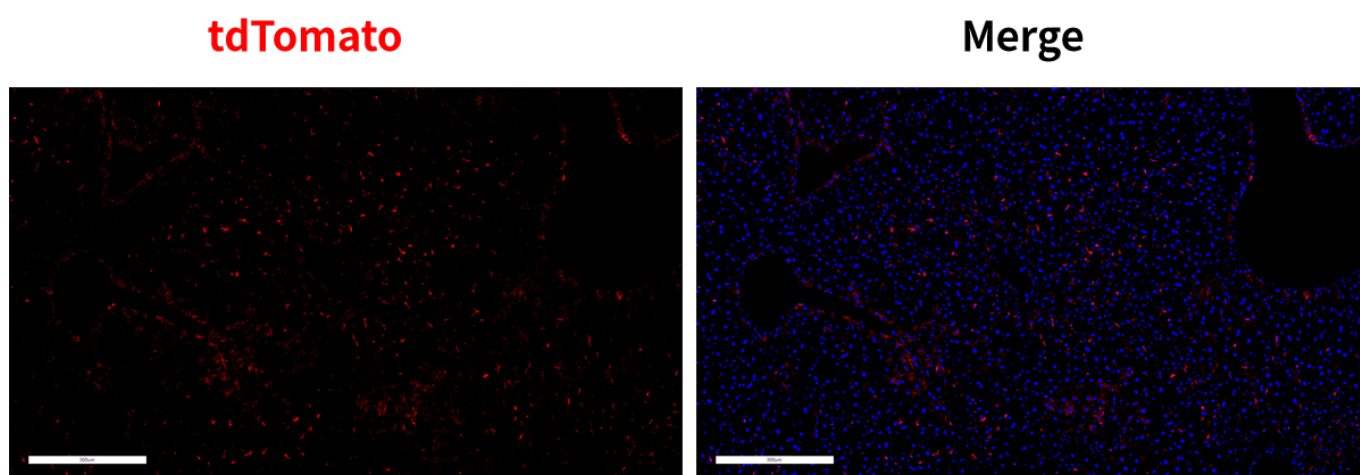


Fig. 2 Cre-mediated recombination in the liver of *Cx3cr1cre/+*; *Rosa26tdTomato/+* mouse. TdTomato(red) expression can be detected in the hepatic kupffer cells of *Cx3cr1cre/+*; *Rosa26tdTomato/+* mouse.

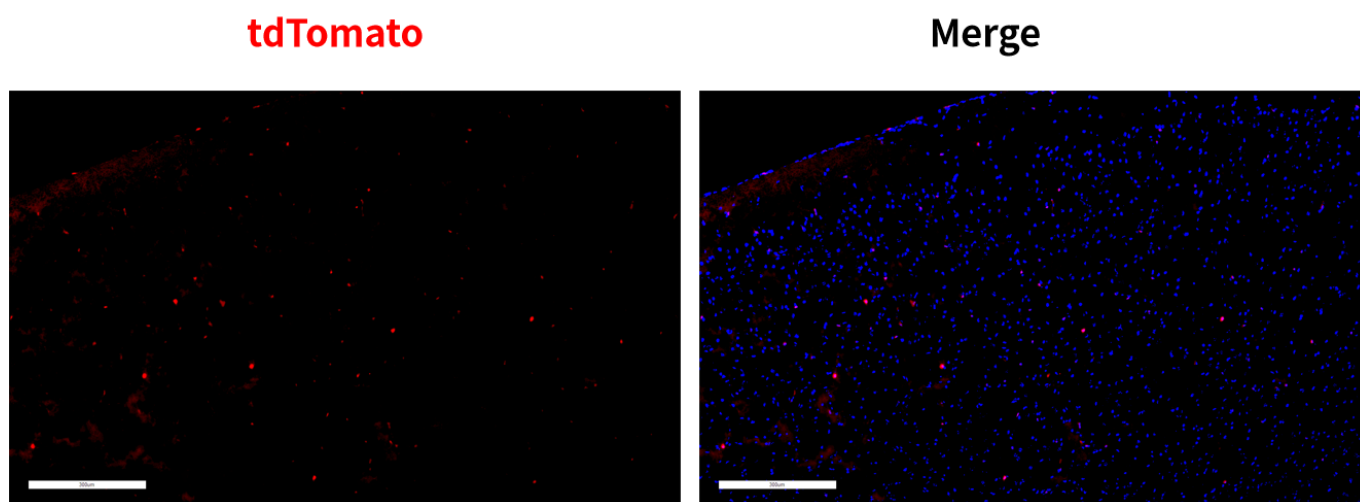


Fig. 3 Cre-mediated recombination in the brain of *Cx3cr1cre/+*; *Rosa26tdTomato/+* mouse. TdTomato(red) expression can be detected in the microglial cells

of *Cx3cr1Cre/+; Rosa26tdTomato/+* mouse.

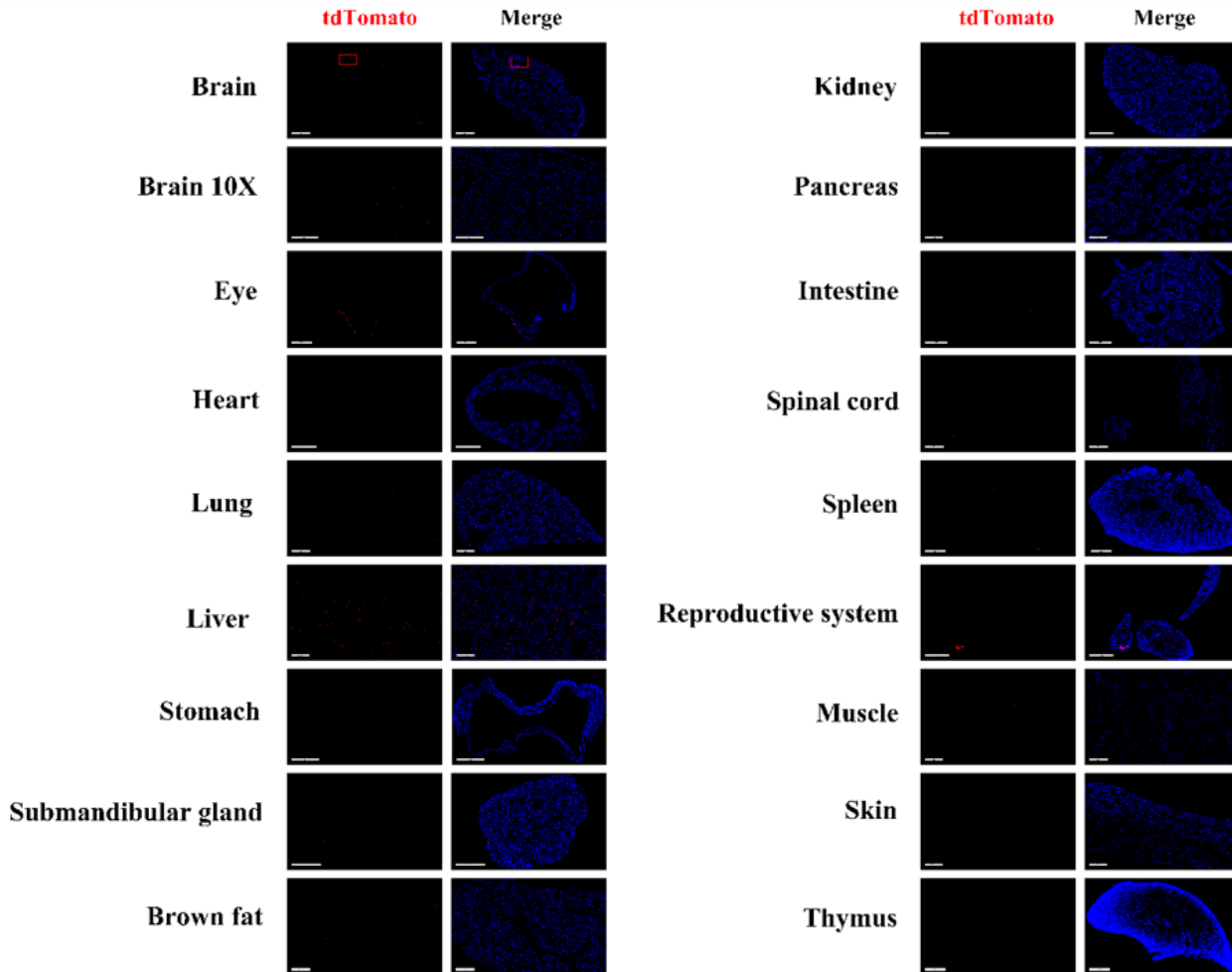


Fig. 4 Detection of tdTomato(red) in various tissues of *Cx3cr1Cre/+; Rosa26tdTomato/+* mice. Cre mediated recombination can be detected in some cells of the brain, liver, lung, stomach, salivary gland, small intestine, spinal cord, spleen, testis and epididymis, skin and subcutaneous tissue, skeletal muscle and thymus. Tdtomato expression can not be observed in the brown fat, heart, retina, kidney or pancreas. (For more detailed information please contact our technical advisor.)