

Tagln-Cre

Nomenclature	C57BL/6Smoc- <i>Tagln</i> ^{em1(Cre-WPRE-polyA)Smoc}
Cat. NO.	NM-KI-200144
Strain State	Sperm cryopreservation

Gene Summary

Gene Symbol	Synonyms	Sm22, Sm22a, Ws310
	NCBI ID	21345
	MGI ID	106012
	Ensembl ID	ENSMUSG00000032085
	Human Ortholog	TAGLN

Model Description

A Cre-WPRE-polyA expression cassette was knocked into the Tagln gene start codon site. This gene encodes a smooth muscle cell-specific cytoskeletal protein. When crossed with a strain carrying a gene flanked by loxP sites, the flanked gene will be removed in vascular smooth muscle cells. In mouse models of atherosclerosis, the gene product may be involved in plaque cell and atherosclerotic lesion formation during atherogenesis.

Research Application: Cre recombinase tool

*Literature published using this strain should indicate: Tagln-Cre mice (Cat. NO. NM-KI-200144) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

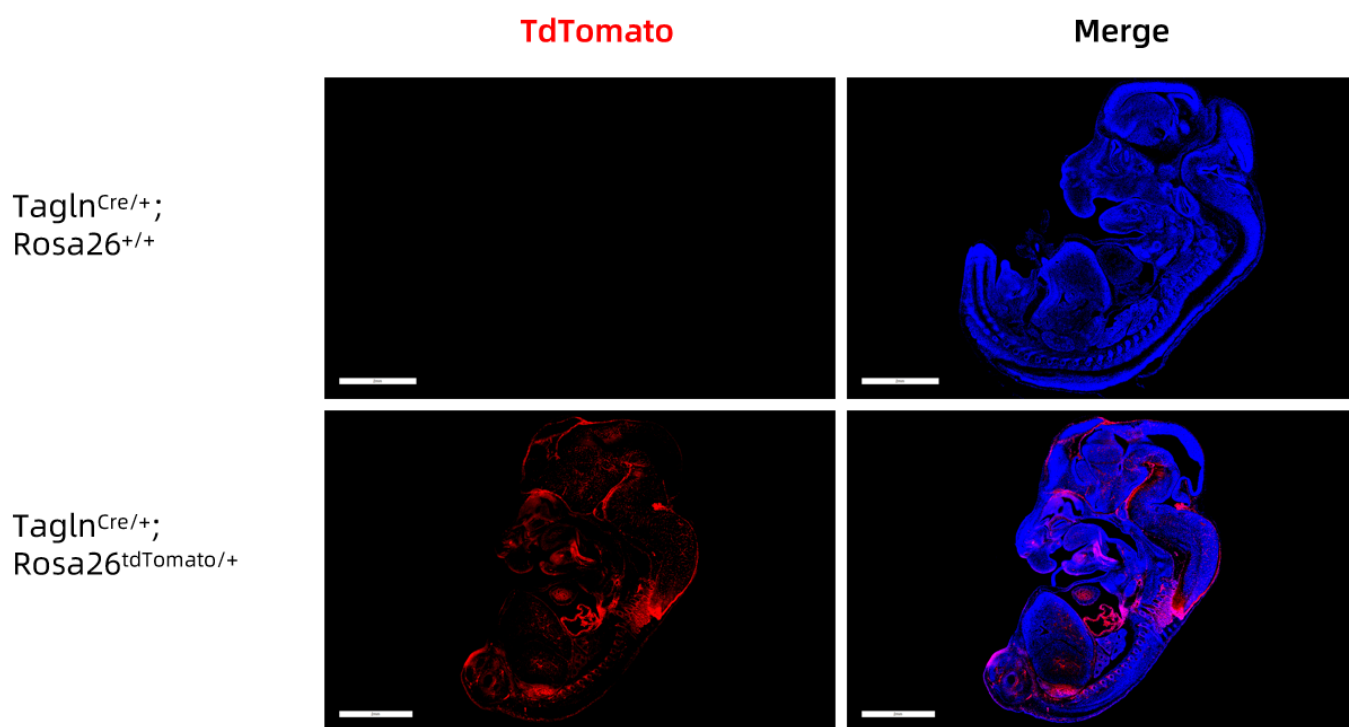


Fig. 1 Cre-mediated recombination in the embryo of Tagln^{Cre/+}; Rosa26^{tdTomato/+} mouse. TdTomato(red) expression can be detected in the vessels of E11.5 Tagln^{Cre/+}; Rosa26^{tdTomato/+} mouse embryo.

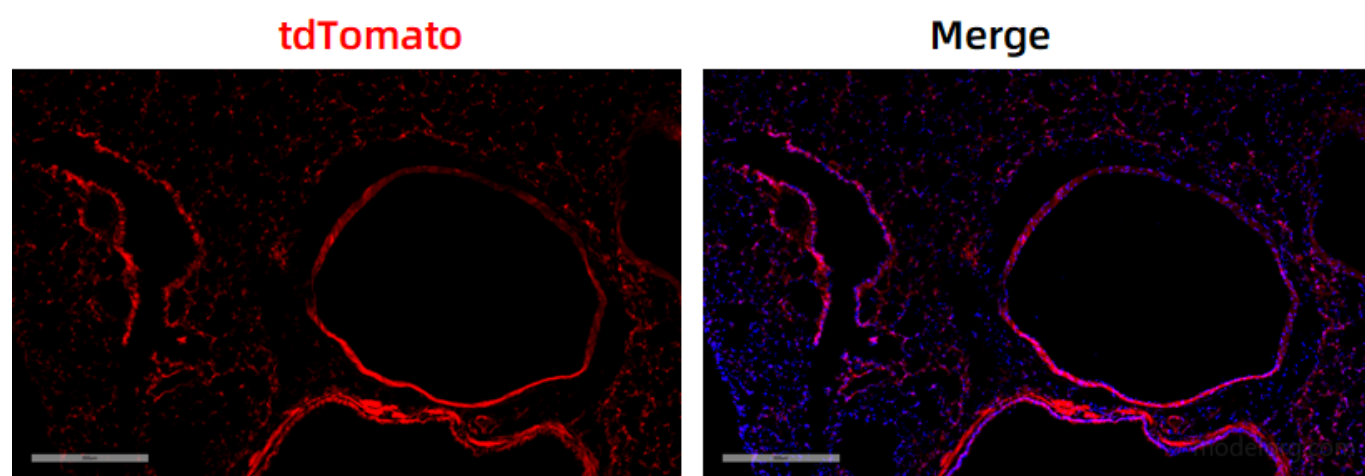


Fig. 2 Cre-mediated recombination in the lung of Tagln^{Cre/+}; Rosa26^{tdTomato/+} mouse. TdTomato(red) expression can be detected in the pulmonary vascular smooth muscle cells of Tagln^{Cre/+}; Rosa26^{tdTomato/+} mouse.

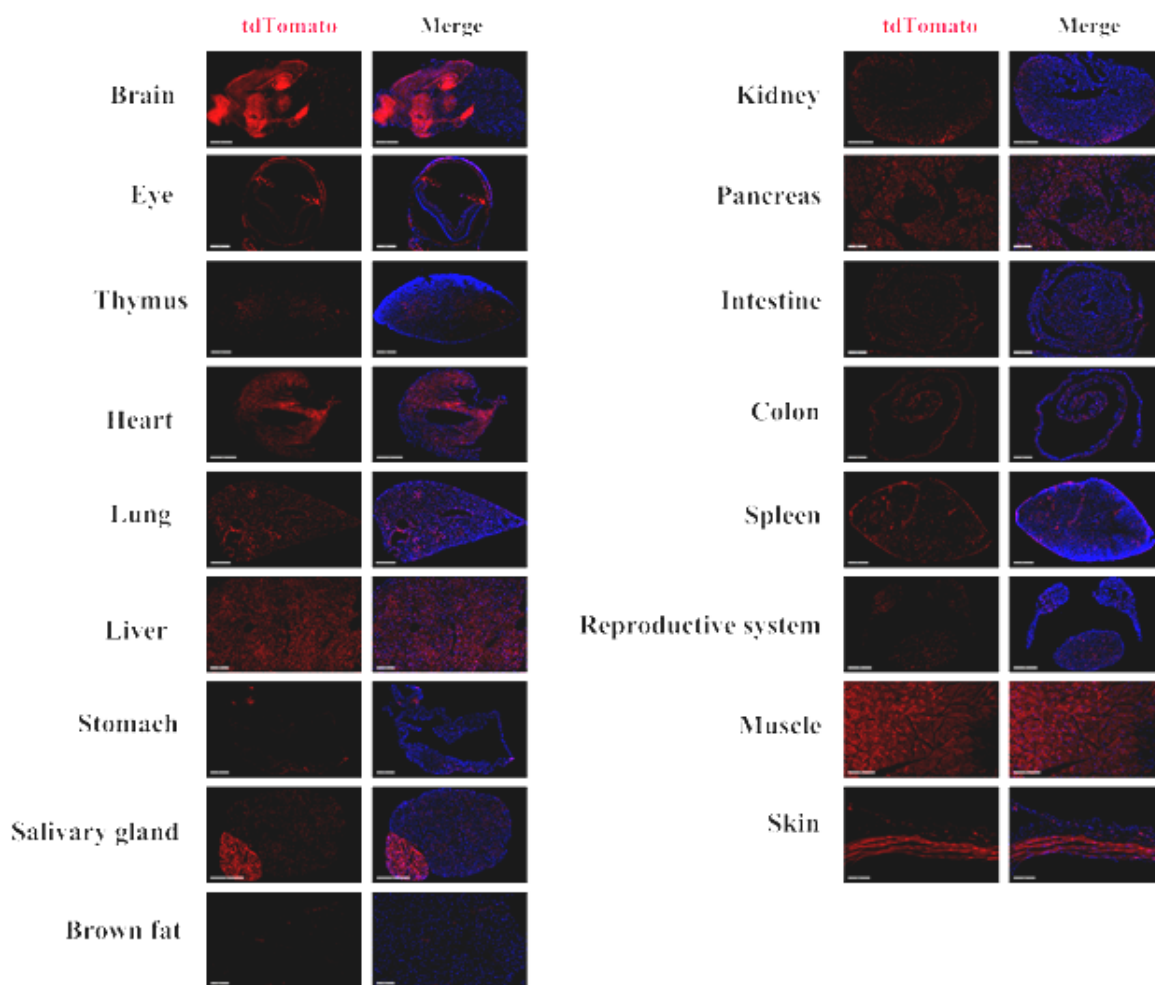


Fig. 3 Detection of tdTomato(red) in various tissues of $\text{Tagln}^{\text{Cre}/+}; \text{Rosa26}^{\text{tdTomato}/+}$ mice. Tdtomato was abundantly expressed in the brain, eyes, heart, liver, lung, muscle, pancreas, testis, epididymis, salivary gland, spleen and thymus. Tdtomato was also detected in some cells of the colon, intestine, kidney, skin and in individual cells of brown fat and stomach. (For more detailed information please contact our technical advisor.)