

Nkx2-5-IRES-Cre

Nomenclature	C57BL/6Smoc- <i>Nkx2-5</i> ^{em1(IRES-Cre-WPRE-polyA)} Smoc
Cat. NO.	NM-KI-200152
Strain State	Sperm cryopreservation

Gene Summary

Gene Symbol Nkx2-5	Synonyms	Csx; Nkx2.5; tinman; Nkx-2.5
	NCBI ID	18091
	MGI ID	97350
	Ensembl ID	ENSMUSG00000015579
	Human Ortholog	NKX2-5

Model Description

A IRES-Cre-WPRE-polyA expression cassette was knocked into the Nkx2-5 gene stop codon site.

Research Application: Cre recombinase tool; Nkx2.5 acts as a key transcription factor and plays essential roles for heart formation. By mating the reporter mice with Cre-expressing mice, Nkx2-5 positive cells derived from double-positive mice were permanently labeled by fluorescent protein. When crossed with mice carrying a targeted floxed alleles, this strain is useful in eliminating tissue-specific conditional expression of the gene.

*Literature published using this strain should indicate: Nkx2-5-IRES-Cre mice (Cat. NO. NM-KI-200152) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

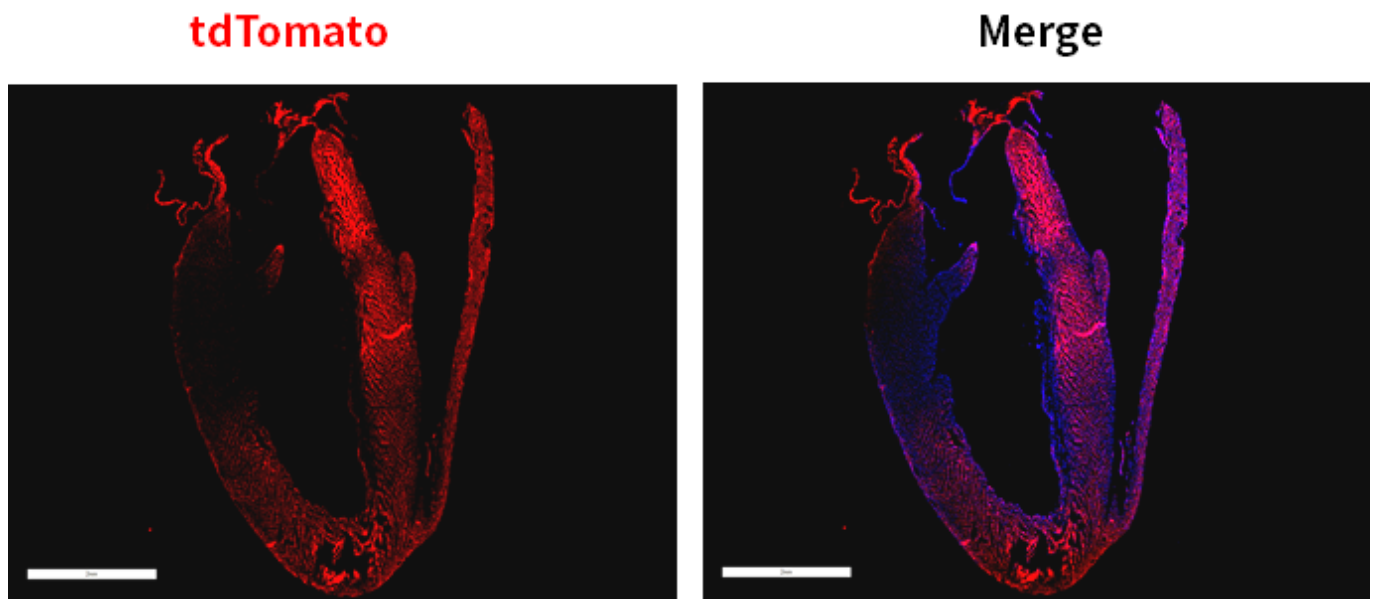


Fig. 1 Cre-mediated recombination in the heart of $Nkx2-5^{Cre/+}; Rosa26^{tdTomato/+}$ mouse. TdTomato(red) expression can be detected in the myocardial cells and vascular cells of $Nkx2-5^{Cre/+}; Rosa26^{tdTomato/+}$ mouse.

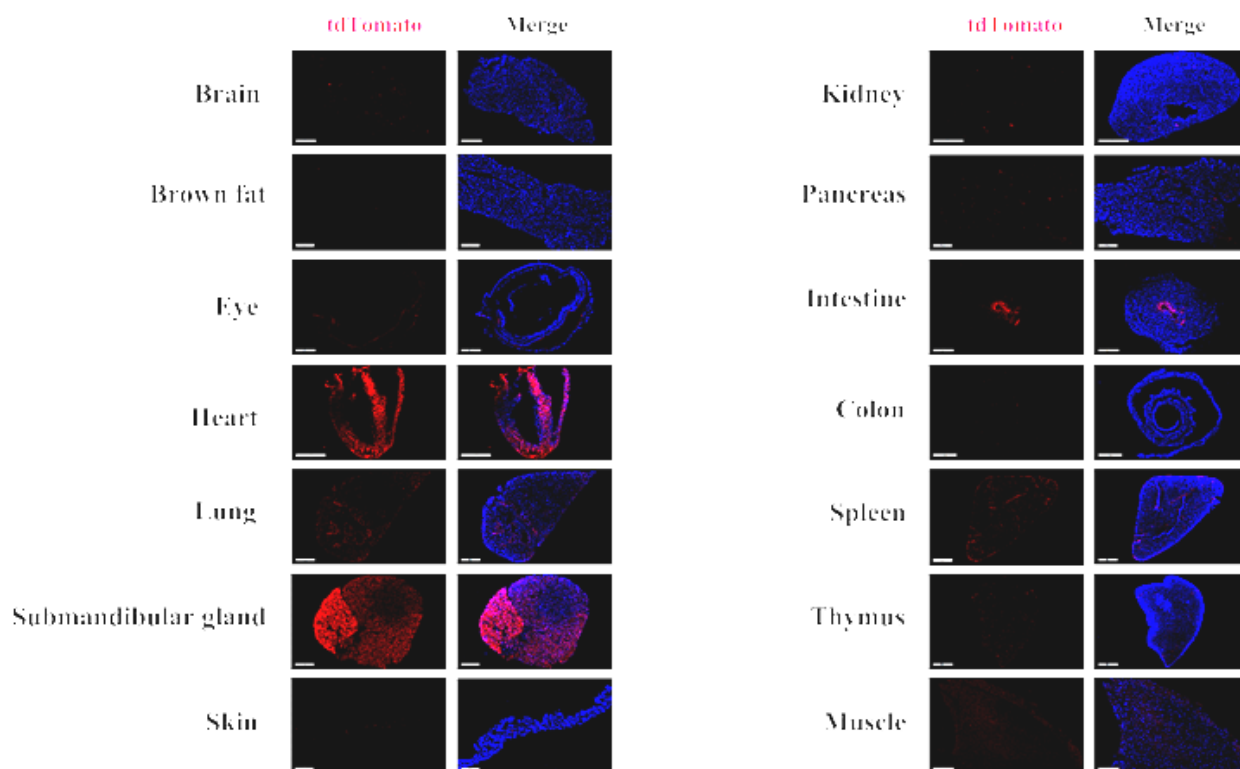


Fig. 2 Detection of tdTomato(red) in various tissues of $Nkx2-5^{Cre/+}; Rosa26^{tdTomato/+}$ mice. Cre mediated recombination can be detected in the heart, bronchus, pulmonary alveoli and submandibular gland. Tdtomato expression can be also detected in individual cells derived from the brain, retina, skin, kidney, pancreas, intestine, colon, spleen and thymus, except for pituitary and muscle. (For more detailed information please contact our technical advisor.)

