

# Nkx2-5-IRES-Cre

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

## Gene Summary

<b>Gene Symbol</b> Nkx2-5	<b>Synonyms</b>	Csx; Nkx2.5; tinman; Nkx-2.5
	<b>NCBI ID</b>	<a href="#">18091</a>
	<b>MGI ID</b>	<a href="#">97350</a>
	<b>Ensembl ID</b>	<a href="#">ENSMUSG00000015579</a>
	<b>Human Ortholog</b>	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

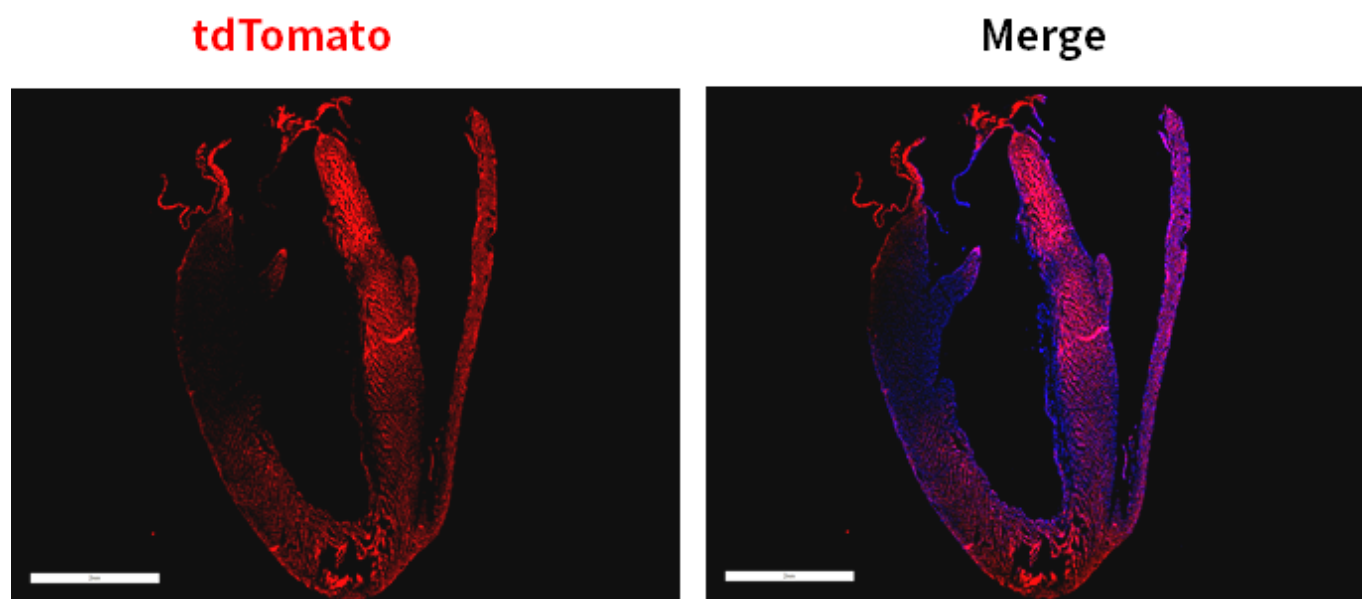


Fig. 1 Cre-mediated recombination in the heart of  $Nkx2-5^{Cre/+}; Rosa26^{tdTomato/+}$  mouse. TdTomato(red) expression can be detected in the myocardial cells and vascular cells of  $Nkx2-5^{Cre/+}; Rosa26^{tdTomato/+}$  mouse.

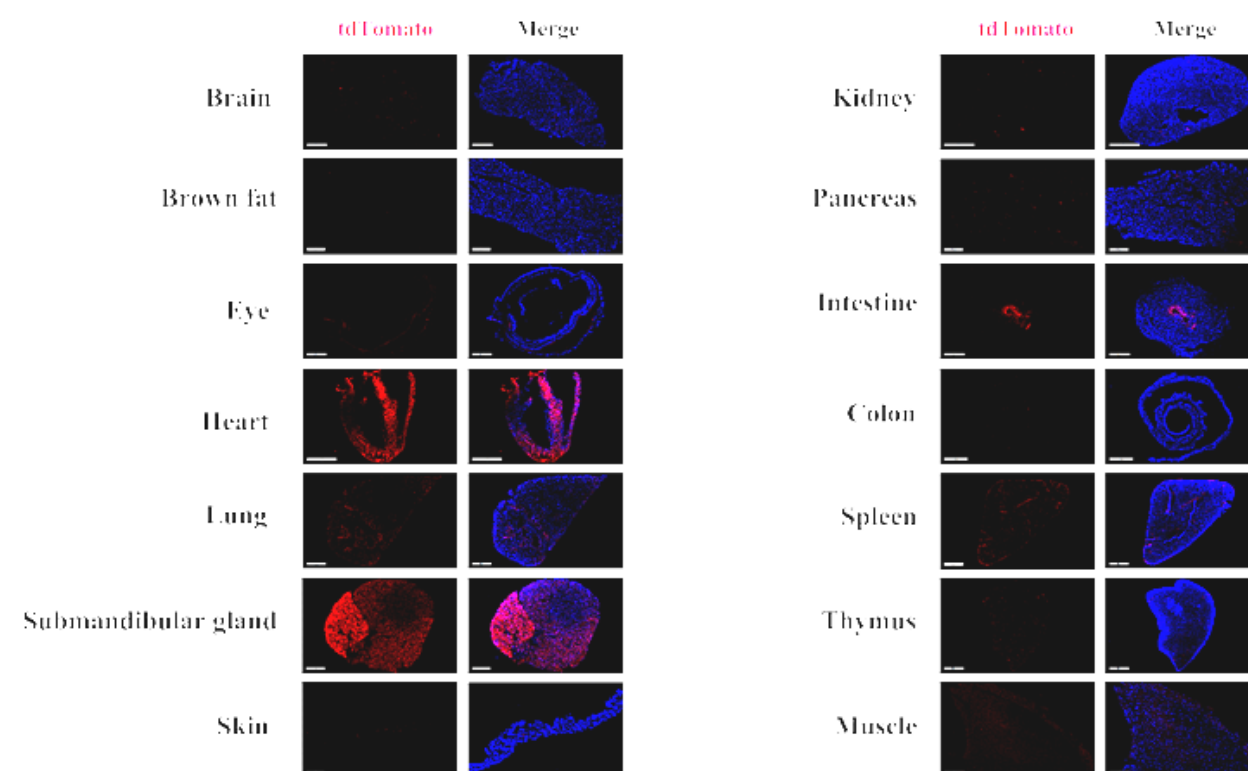


Fig. 2 Detection of tdTomato(red) in various tissues of  $Nkx2-5^{Cre/+}; Rosa26^{tdTomato/+}$  mice. Cre mediated recombination can be detected in the heart, bronchus, pulmonary alveoli and submandibular gland. Tdtomato expression can be also detected in individual cells derived from the brain, retina,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

