

Wt1-CreERT2

Nomenclature	C57BL/6Smoc- <i>Wt1</i> ^{em1(CreERT2-WPRE-pA)Smoc}
Cat. NO.	NM-KI-200127
Strain State	Repository Live

Gene Summary

Gene Symbol Wt1	Synonyms	Wt-1; D630046I19Rik
	NCBI ID	22431
	MGI ID	98968
	Ensembl ID	ENSMUSG00000016458
	Human Ortholog	WT1

Model Description

A CreERT2-WPRE-pA expression cassette was knocked into the Wt1 gene start codon site.

Research Application: As Wt1 is expressed in the epicardium of the heart and in the mesothelia overlying most visceral organs, these mutant mice are useful for lineage-tracing/marketing Wt1-expressing cells for studying the heart, the development of sperm and hepatic injury.

*Literature published using this strain should indicate: Wt1-CreERT2 mice (Cat. NO. NM-KI-200127) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

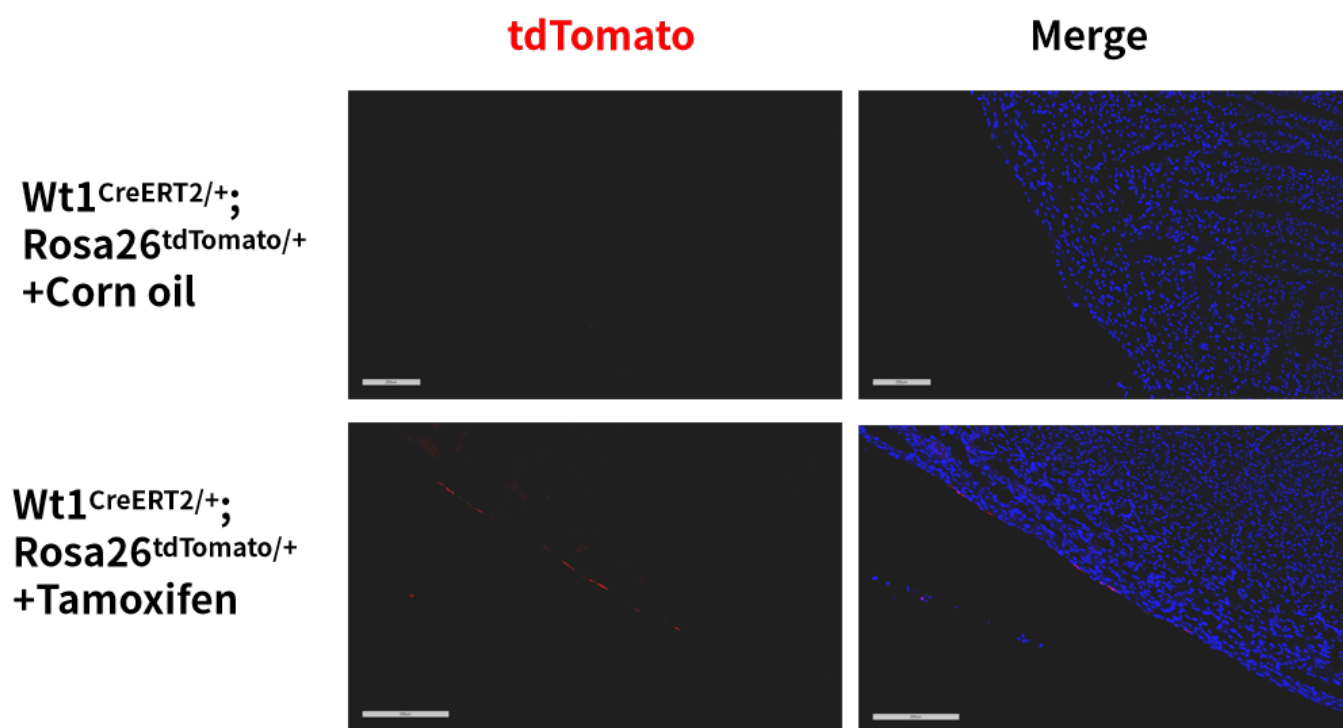


Fig. 1 CreERT2-mediated recombination in the heart of Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse.

Detection of tdTomato (red) in the epicardium of Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse after tamoxifen treatment.

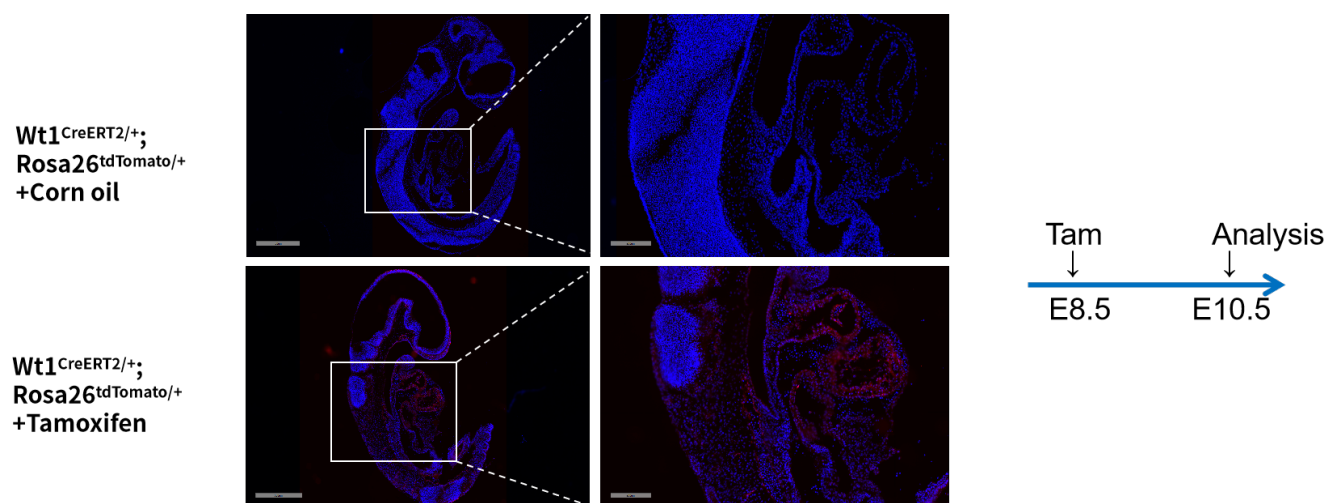


Fig. 2 CreERT2-mediated recombination in the heart of Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse embryo at E10.5.

Detection of tdTomato (red) in the heart of Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse embryo at E10.5 after tamoxifen treatment.

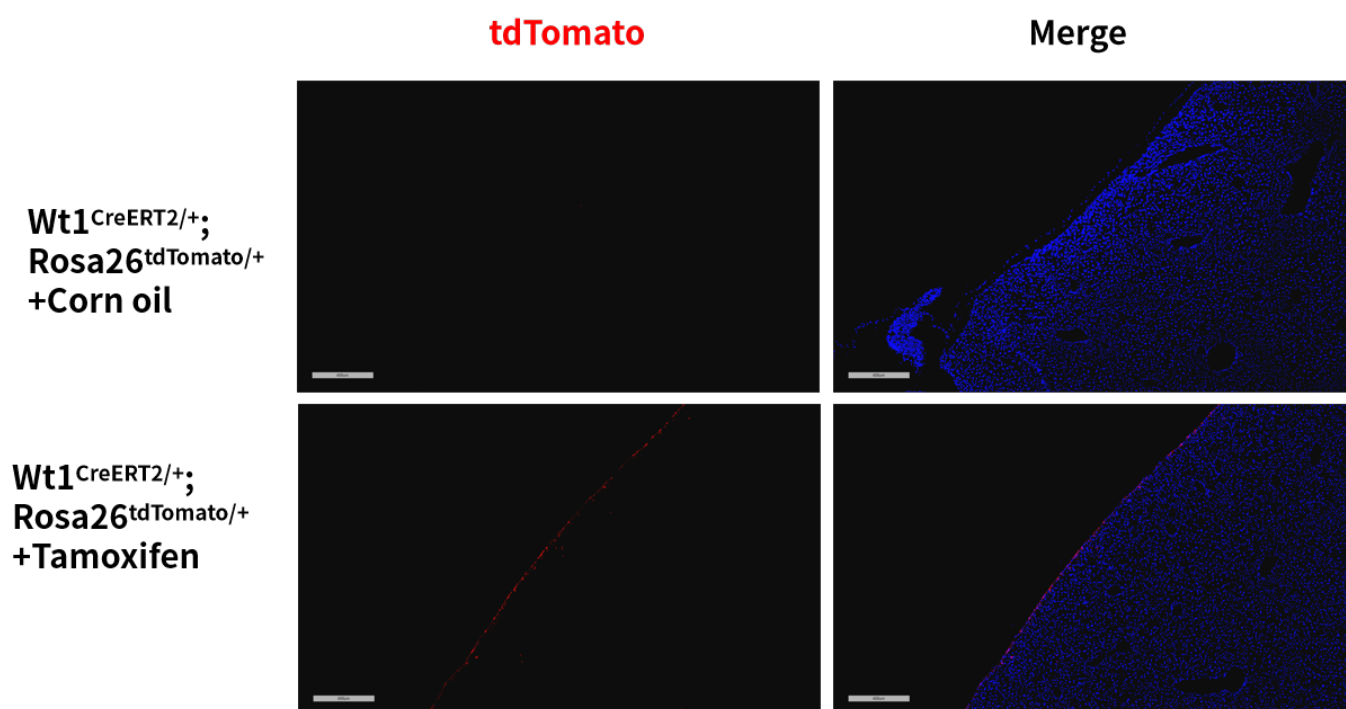


Fig. 3 CreERT2-mediated recombination in the liver of Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse.

Detection of tdTomato (red) in the mesothelial cell of the liver derived from Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse after tamoxifen treatment.

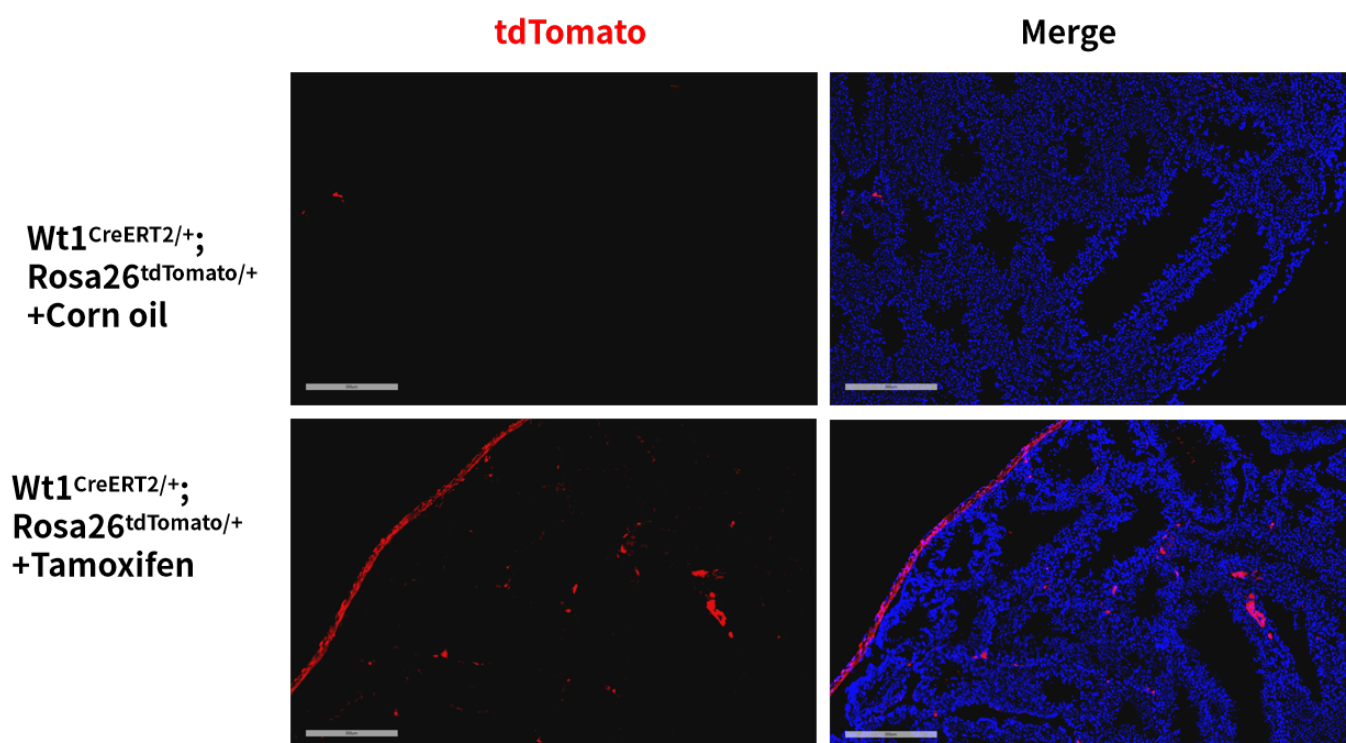


Fig. 4 CreERT2-mediated recombination in the testis of Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse.

Detection of tdTomato (red) in the tunica albuginea, tunica vaginalis and individual cells of parenchymal structure of the testis derived from Wt1^{CreERT2/+}; Rosa26^{tdTomato/+} mouse after tamoxifen treatment.

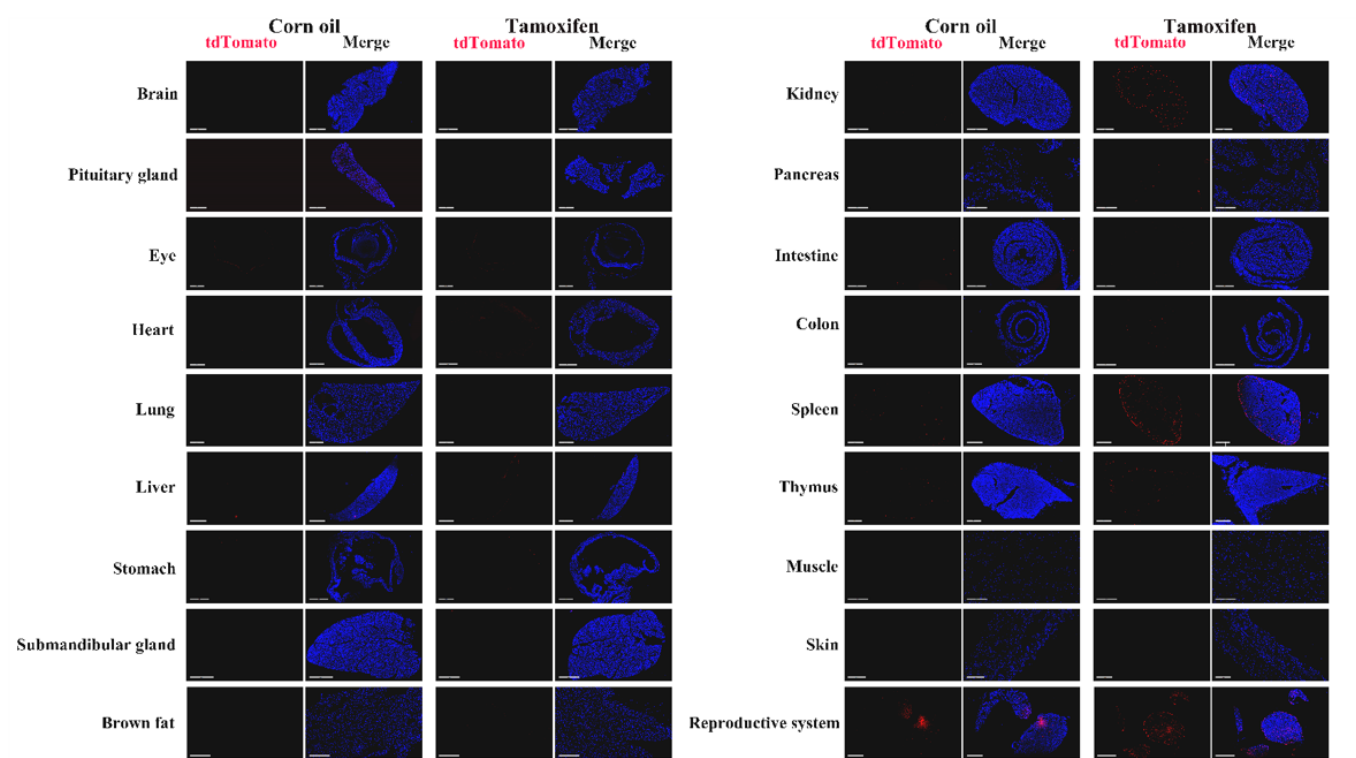


Fig. 5: Detection of tdTomato(red) in various tissues of $Wt1^{CreERT2/+}; Rosa26^{tdTomato/+}$ mice. CreERT2 mediated recombination can be detected in the tunica externa of heart, liver, spleen, stomach, intestine, colon after tamoxifen treatment. Some leakiness were detected in the spleen prior to tamoxifen exposure. Besides, tdtomato expression can be detected in a few cells of the pancreas and thymus. Tdtomato expression can not be observed in the brain, pituitary gland, retina, lung, submandibular gland, skin and muscle. (For more detailed information please contact our technical advisor.)