

Etv1-CreERT2

Nomenclature	C57BL/6Smoc- <i>Etv1</i> ^{em1(CreERT2-SV40-pA)Smoc}
Cat. NO.	NM-KI-200105
Strain State	Sperm cryopreservation

Gene Summary

Gene Symbol Etv1	Synonyms	ER81; Etsrp81
	NCBI ID	14009
	MGI ID	99254
	Ensembl ID	ENSMUSG000000004151
	Human Ortholog	ETV1

Model Description

A CreERT2 expression cassette was knocked into the *Etv1* gene start codon site. ETV1 expression is enriched in fast conduction tissues of embryonic and adult mammalian hearts. And ETV1 expression is upregulated in the atrial tissue of patients with permanent atrial fibrillation. *Etv1*-CreERT2 mice can be applied to heart disease research. ETV1 is also expressed in retinal ganglion cells of adult mice, and the mouse model can be used to study how retinal ganglion cells contribute to visual processing in the brain.

Research Application: Cre recombinase tool

*Literature published using this strain should indicate: *Etv1*-CreERT2 mice (Cat. NO. NM-KI-200105) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

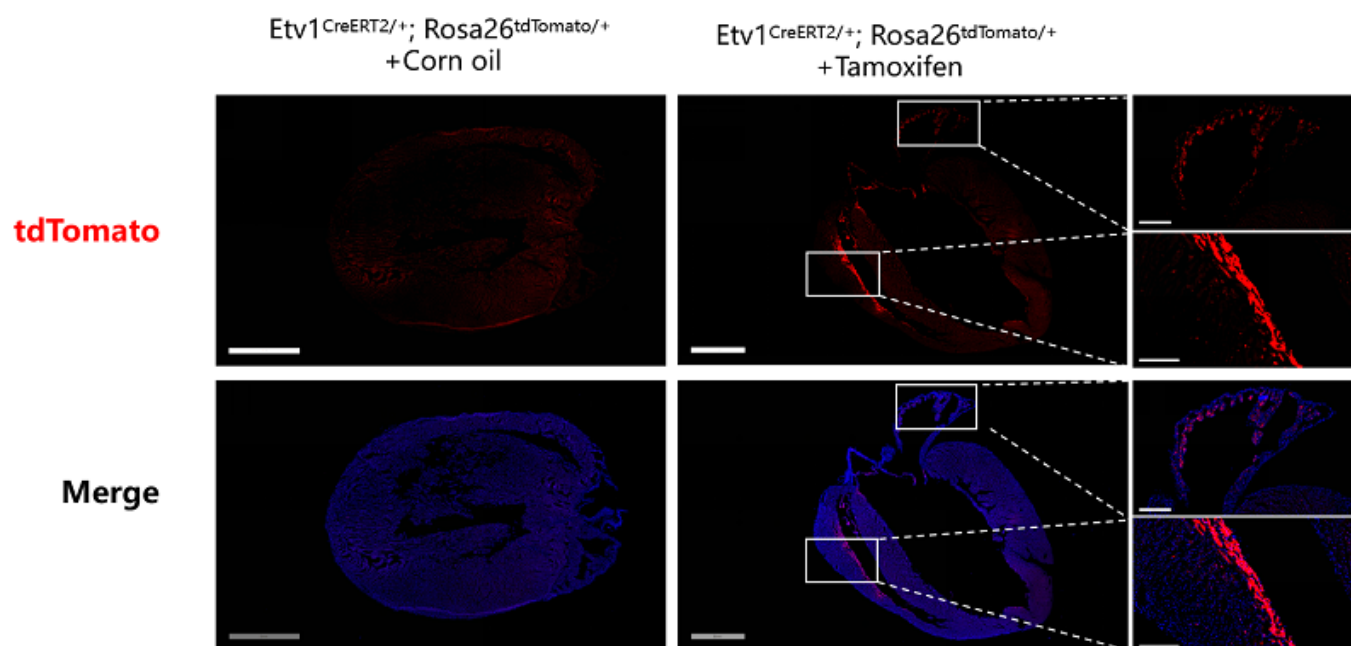


Fig. 1 Detection of tdTomato (red) in the heart of $Etv1^{CreERT2/+}; Rosa26^{tdTomato/+}$ mouse. CreERT2-mediated recombination in some of the left atrium and right ventricle cells of $Etv1^{CreERT2/+}; Rosa26^{tdTomato/+}$ mouse after tamoxifen treatment.

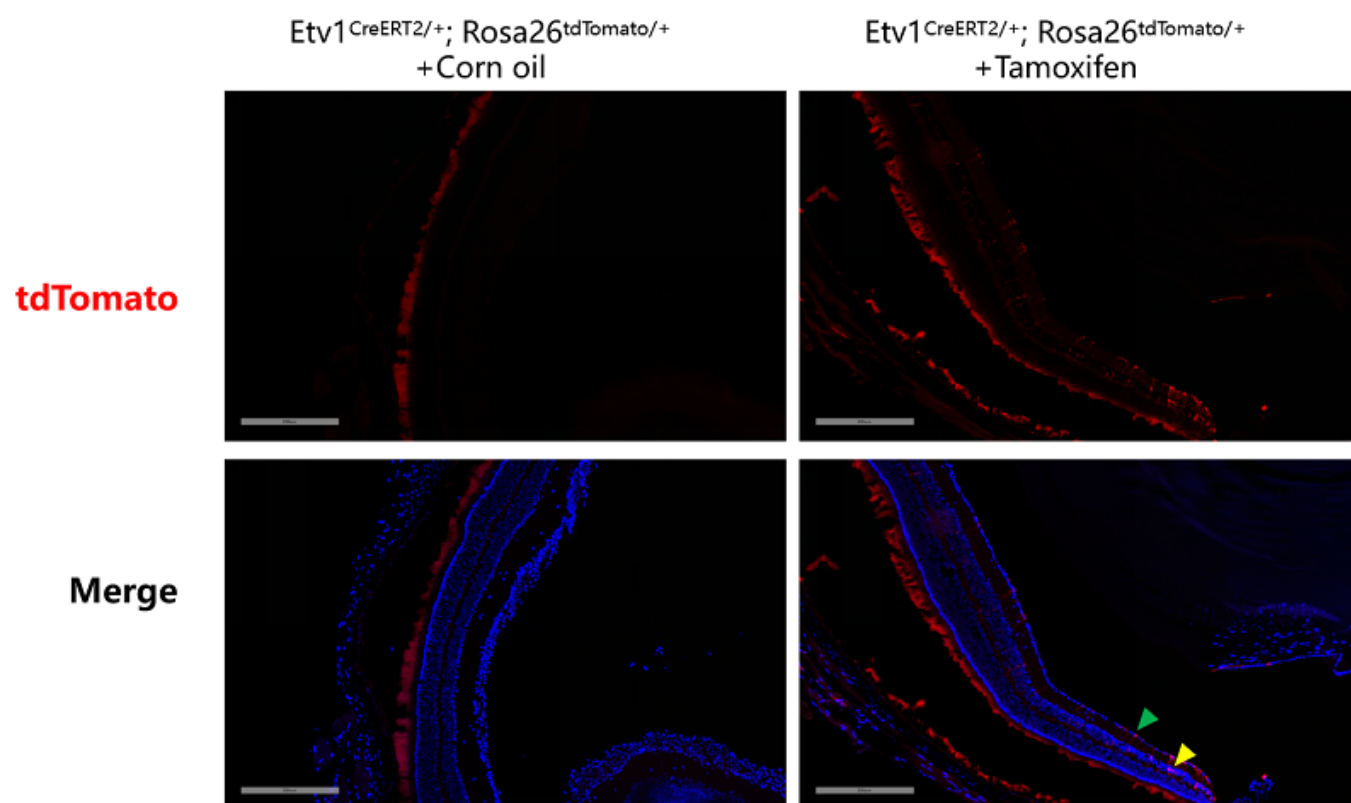


Fig. 2 Detection of tdTomato (red) in the retina of $Etv1^{CreERT2/+}; Rosa26^{tdTomato/+}$ mouse after tamoxifen treatment. CreERT2-mediated recombination in the retinal ganglion cell layer (green arrowhead) and inner nuclear layer (yellow arrowhead) of $Etv1^{CreERT2/+}; Rosa26^{tdTomato/+}$ mouse can be induced by tamoxifen.

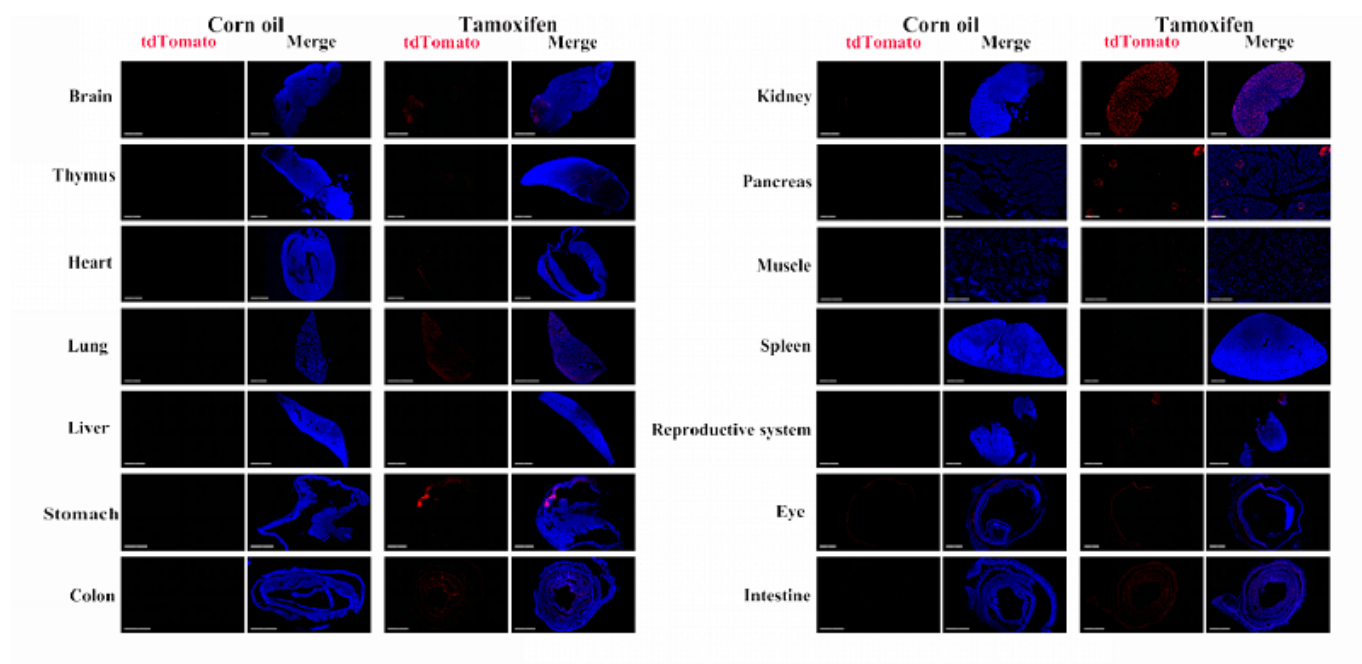


Fig. 3 Detection of tdTomato (red) in various tissues of *Etv1CreERT2/+; Rosa26tdTomato/+* mice.

CreERT2-mediated recombination in the heart and retina can be induced by tamoxifen. And tdTomato expression can also be observed in the brain, lung, stomach, colon, intestine, kidney and pancreas, but not in liver.