

Acta2-CreERT2

Nomenclature	C57BL/6Smoc- <i>Acta2</i> ^{em1(CreERT2-Wpre-polyA)Smoc}
Cat. NO.	NM-KI-200074
Strain State	Repository Live

Gene Summary

Gene Symbol Acta2	Synonyms	Actvs; a-SMA; SMalphaA; alphaSMA; 0610041G09Rik
	NCBI ID	11475
	MGI ID	87909
	Ensembl ID	ENSMUSG00000035783
	Human Ortholog	ACTA2

Model Description

A CreERT2-Wpre-polyA expression cassette was knocked into the Acta2 gene start codon site.

Research Application: These mice express cre recombinase from the Acta2 locus. This strain may be useful for studying the function of smooth muscle.

*Literature published using this strain should indicate: Acta2-CreERT2 mice (Cat. NO. NM-KI-200074) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

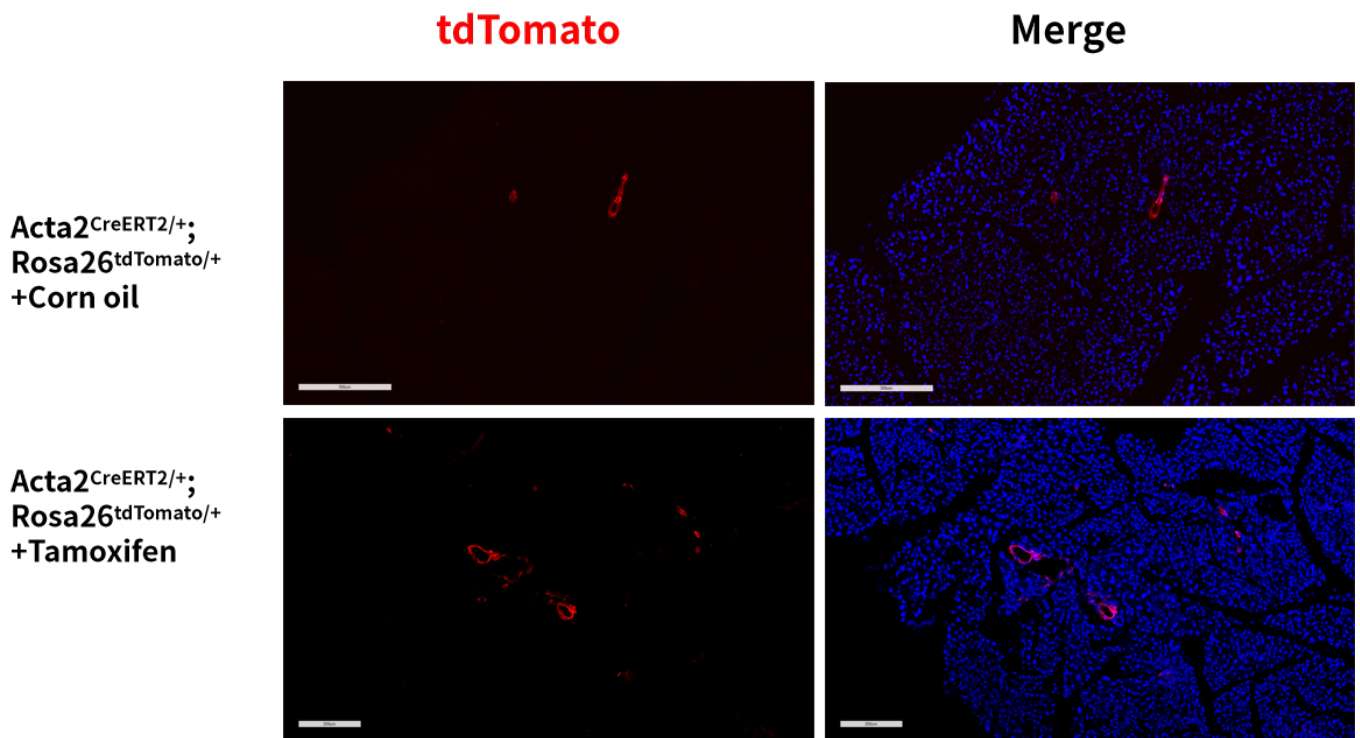


Fig. 1 CreERT2-mediated recombination in the pancreas of $Acta2^{CreERT2/+}; Rosa26^{tdTomato/+}$ mouse. TdTomato (red) expression can be detected in the vascular smooth muscle cells of $Acta2^{CreERT2/+}; Rosa26^{tdTomato/+}$ mouse after tamoxifen treatment. Some leakiness were detected prior to tamoxifen exposure.

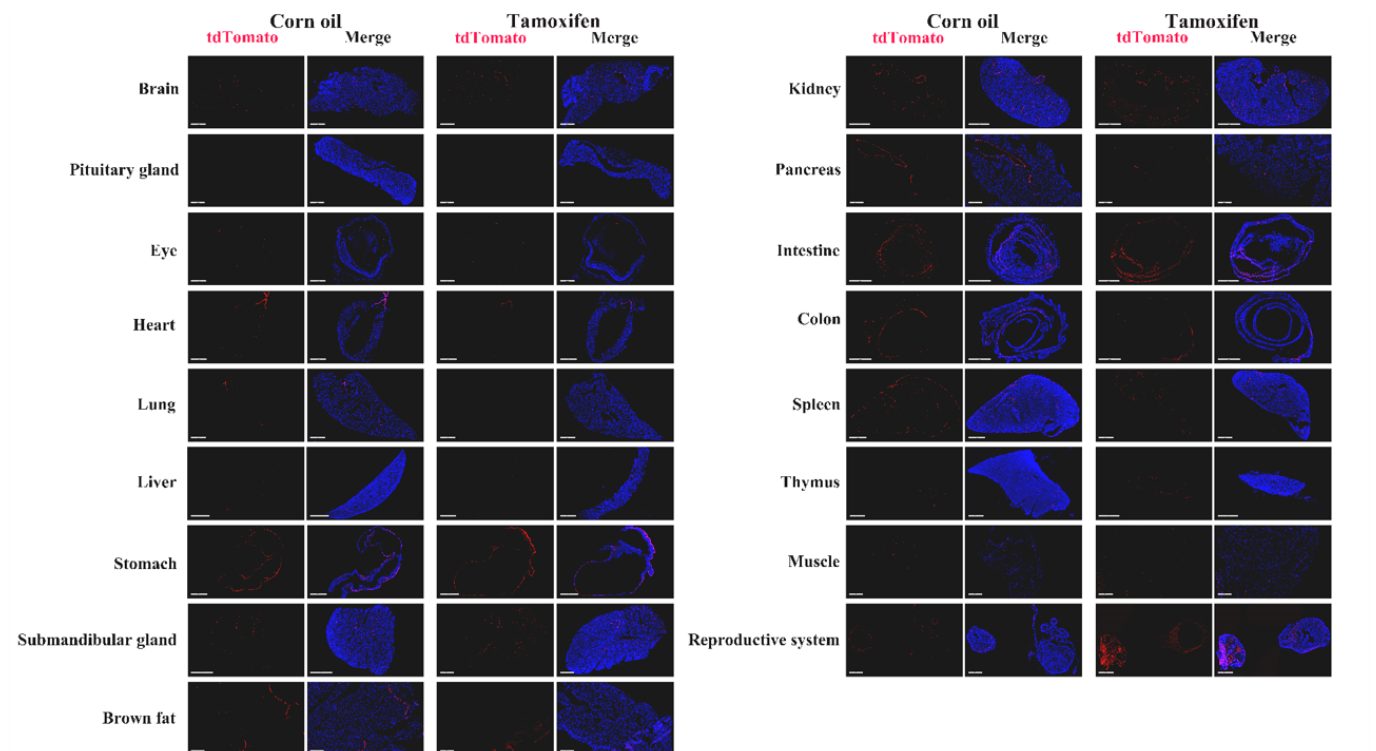


Fig. 2 Detection of tdTomato (red) in various tissues of $Acta2^{CreERT2/+}; Rosa26^{tdTomato/+}$ mice. CreERT2 mediated recombination can be detected in the pancreas, kidney, brain, heart, lung, liver, thymus, submandibular gland, brown fat, ovary, muscle, thymus, spleen, large intestine and small intestine. Leakiness were detected in the above tissues prior to tamoxifen exposure.

Tdtomato expression can not be observed in the pituitary gland. (For more detailed information please contact our technical advisor.)
