

Arc-CreERT2

Nomenclature	C57BL/6Smoc- <i>Arc</i> ^{em1(CreERT2-SV40-pA)Smoc}
Cat. NO.	NM-KI-200101
Strain State	Embryo cryopreservation

Gene Summary

Gene Symbol Arc	Synonyms	mArc; Arc3.1; C86064; arg3.1
	NCBI ID	11838
	MGI ID	88067
	Ensembl ID	ENSMUSG00000022602
	Human Ortholog	ARC

Model Description

A CreERT2 expression cassette was knocked into the Arc gene start codon site.

Research Application: By mating the reporter mice with CreERT2-expressing mice, Arc positive cells derived from double-positive mice were permanently labeled by fluorescent protein after tamoxifen treatment. Arc, a immediate-early gene, encodes a novel cytoskeleton-associated protein that is enriched in neuronal dendrites.

*Literature published using this strain should indicate: Arc-CreERT2 mice (Cat. NO. NM-KI-200101) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

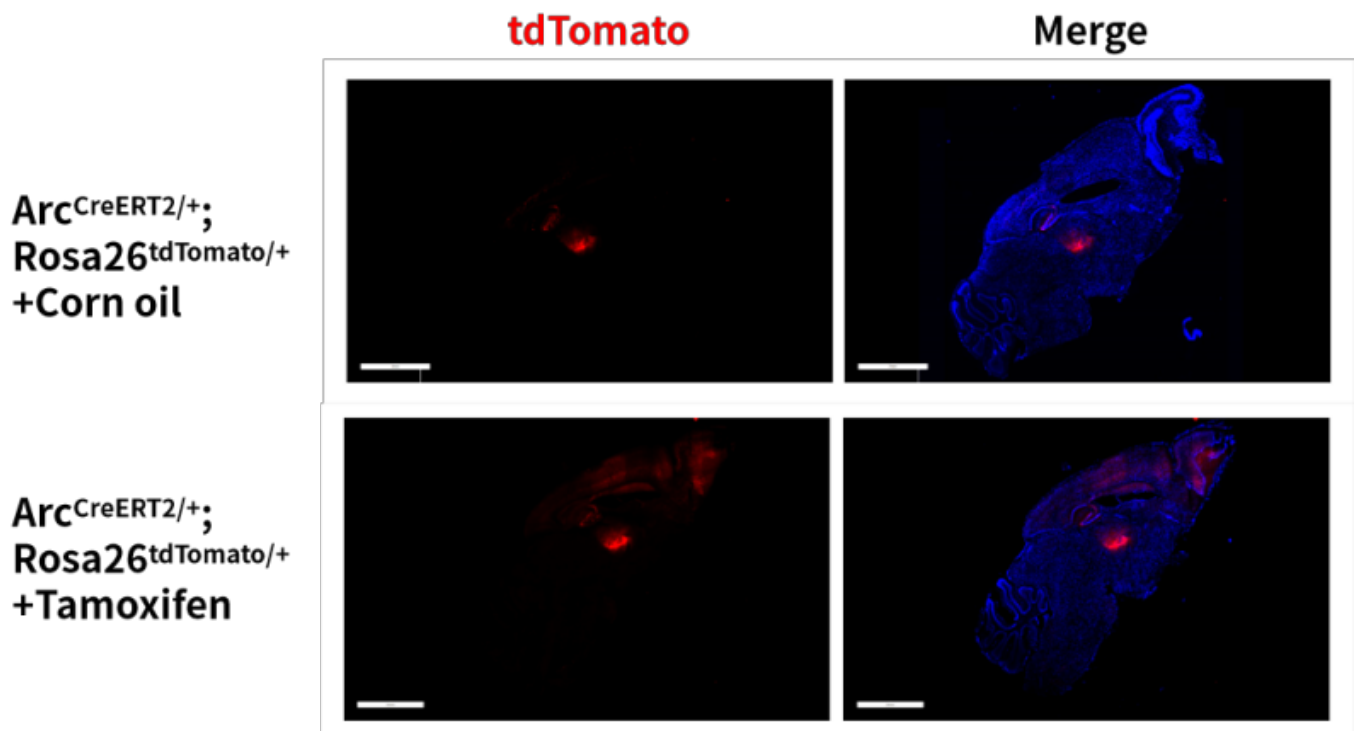


Fig.1 Detection of tdTomato (red) in the brain of Arc^{CreERT2/+}; Rosa26^{tdTomato/+} mouse after tamoxifen treatment. CreERT2-mediated recombination in the brain can be induced by tamoxifen. Some leakiness were detected in the hippocampus and thalamus prior to tamoxifen exposure.

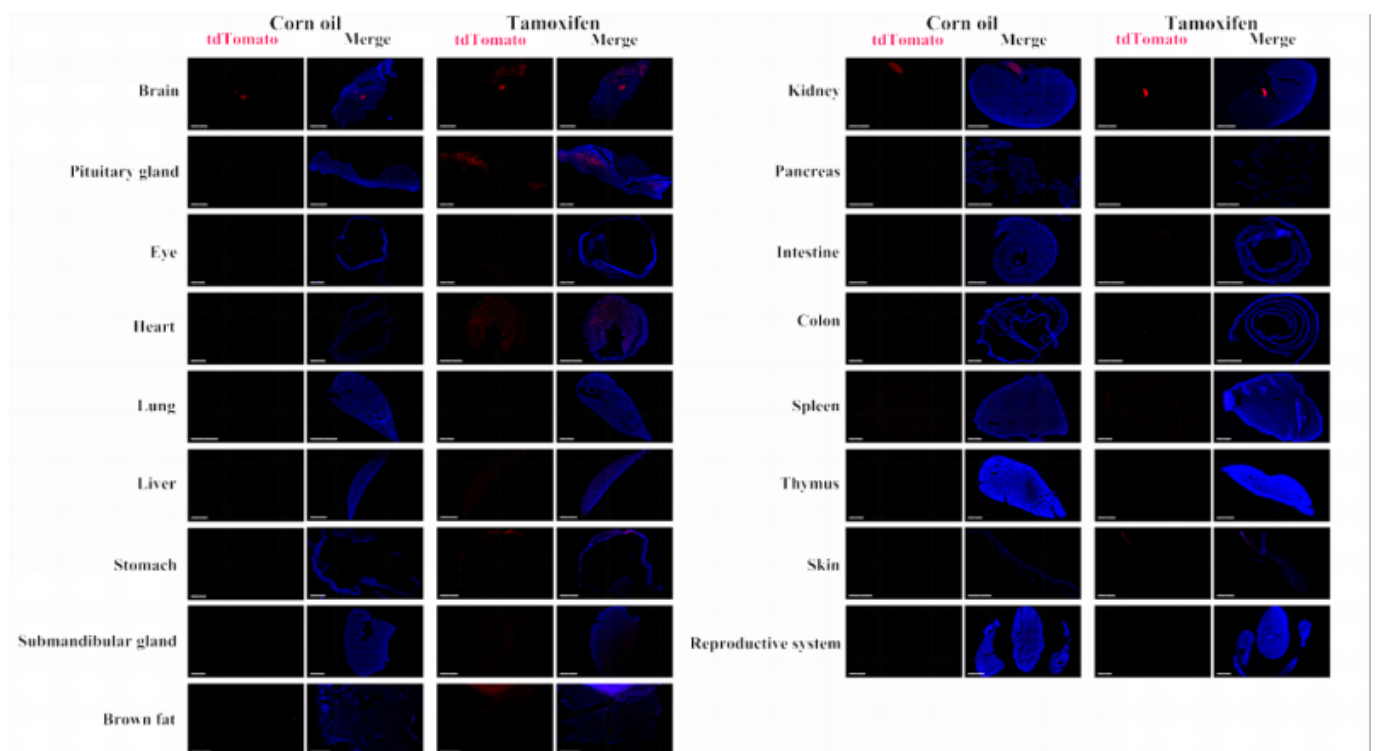


Fig. 2 Detection of tdTomato (red) in various tissues of Arc^{CreERT2/+}; Rosa26tdTomato/+ mice. CreERT2-mediated recombination in the brain, liver, kidney, pancreas, lung, stomach, submandibular gland, skin, testis and epididymis, pituitary gland and eye can be induced by tamoxifen. Some leakiness were detected in the brain and brown fat prior to tamoxifen exposure. (For more detailed information please contact our technical advisor.)

