

# Arc-CreERT2

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

## Gene Summary

<b>Gene Symbol</b> <b>Arc</b>	<b>Synonyms</b>	mArc; Arc3.1; C86064; arg3.1
	<b>NCBI ID</b>	<a href="#">11838</a>
	<b>MGI ID</b>	<a href="#">88067</a>
	<b>Ensembl ID</b>	<a href="#">ENSMUSG00000022602</a>
	<b>Human Ortholog</b>	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

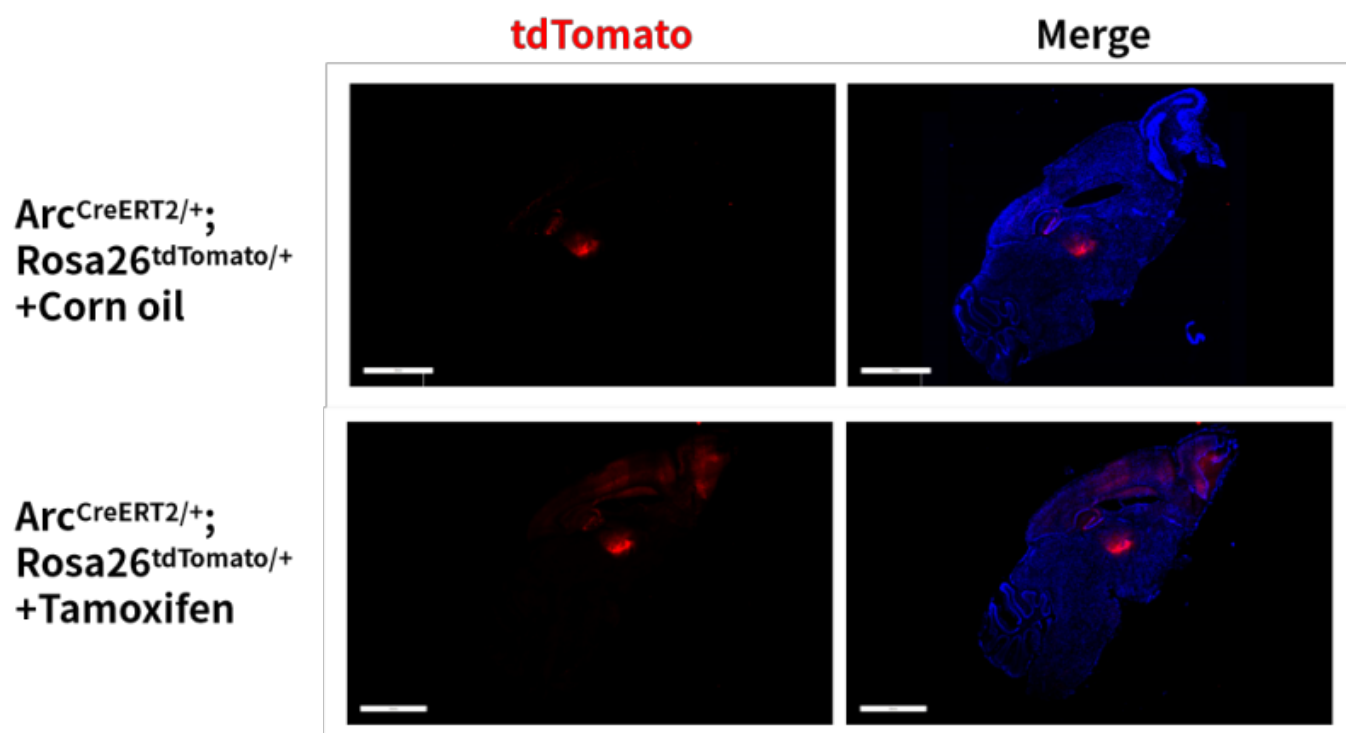


Fig.1 Detection of tdTomato (red) in the brain of  $Arc^{CreERT2/+}; Rosa26^{tdTomato/+}$  mouse after tamoxifen treatment. CreERT2-mediated recombination in the brain can be induced by tamoxifen. Some leakiness were detected in the hippocampus and thalamus prior to tamoxifen exposure.

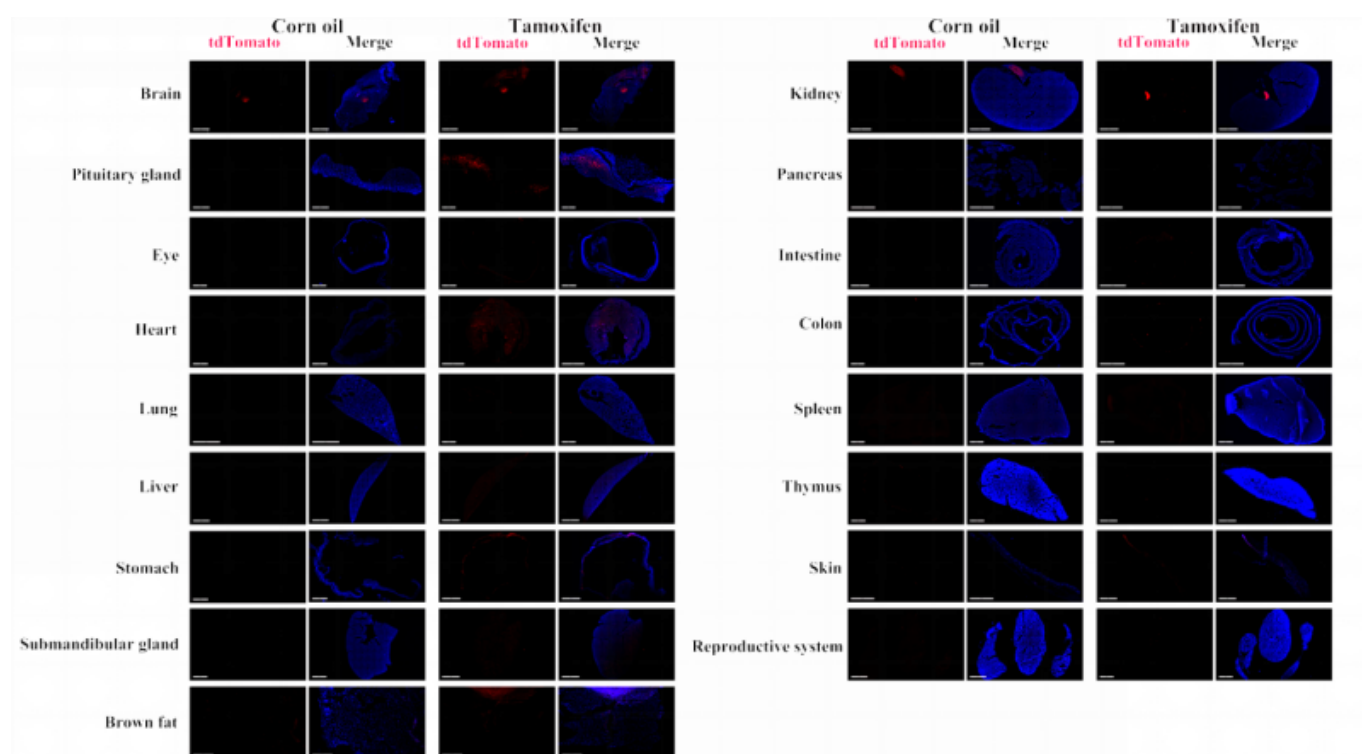


Fig. 2 Detection of tdTomato (red) in various tissues of  $Arc^{CreERT2/+}; Rosa26^{tdTomato/+}$  mice. CreERT2-mediated recombination in the brain, liver, kidney, pancreas, lung, stomach, submandibular gland, skin, testis and epididymis, pituitary gland and eye can be induced by tamoxifen. Some leakiness were detected in the brain and brown fat prior to tamoxifen exposure. (For more detailed information please contact our technical advisor.)

