Ascl1-CreERT2

系統名	C57BL/6Smoc-$Ascl1^{em1(CreERT2-Wpre-pA)Smoc}$
SMOC番号	NM-KI-200207
維持形態	Repository Live

遺伝子の概要

Gene Symbol Ascl1	Synonyms	ASH1; Mash1; bHLHa46; AI225900
	NCBI ID	17172
	MGI ID	96919
	Ensembl ID	ENSMUSG00000020052
	Human Ortholog	ASCL1

説明

A CreERT2-Wpre-pA expression cassette was knocked into the Ascl1 gene start codon site.

応用分野： When crossed with a strain carrying a gene flanked by loxP sites, the flanked gene will be removed in cells expressing cre after tamoxifen treatment. These mice may be useful in studying the role of Ascl1 positive neural progenitor cells in the neuronal turnover and neuronal replacement.

*Literature published using this strain should indicate: Ascl1-CreERT2 mice (Cat. NO. NM-KI-200207) were purchased from Shanghai Model Organisms Center, Inc..
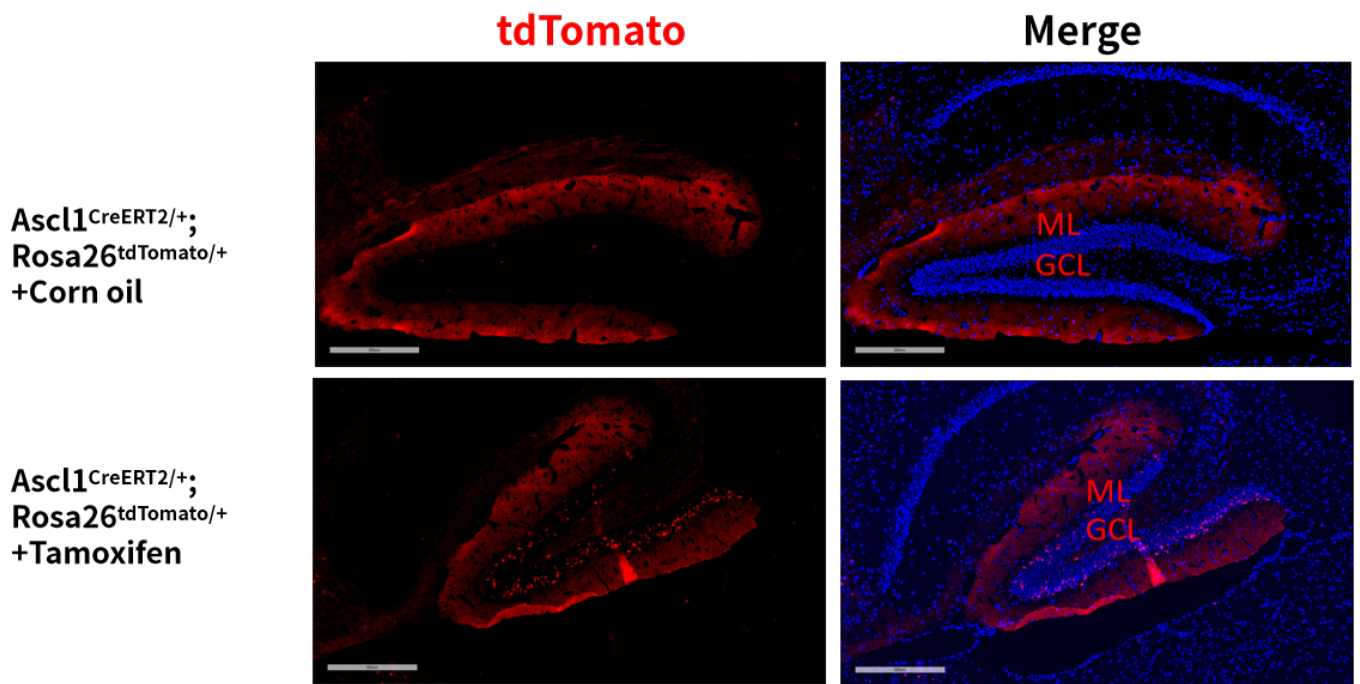
表現型デ□タ

Fig. 1 CreERT2-mediated recombination in the hippocampus of Ascl1^{CreERT2 /+}; Rosa26^{tdTomato/+} mouse. TdTomato(red) expression can be detected in the dentate gyrus granule cell layer and molecular layer of Ascl1 ^{CreERT2 /+}; Rosa26^{tdTomato/+} mouse after tamoxifen treatment. Some leakiness were detected in the molecular layer prior to tamoxifen exposure.
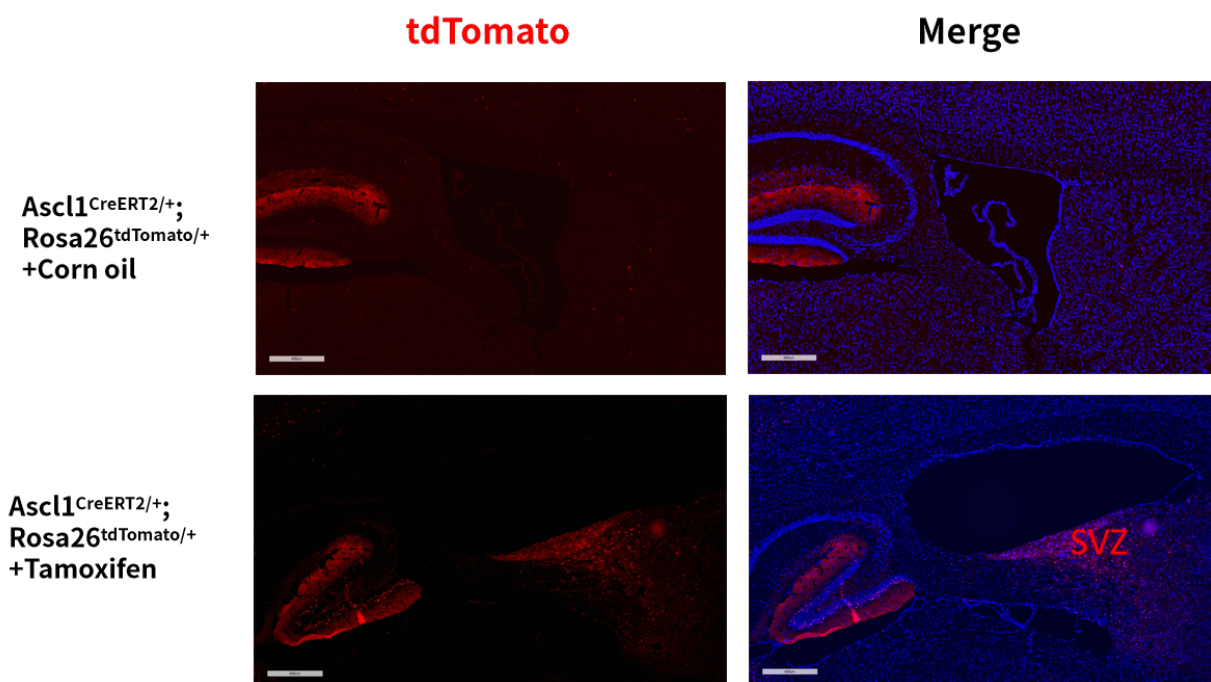

Fig. 2 CreERT2-mediated recombination in the lateral ventricles of Ascl1^{CreERT2 /+}; Rosa26^{tdTomato/+} mouse. TdTomato(red) expression can be detected in the subventricular zone of Ascl1^{CreERT2 /+}; Rosa26^{tdTomato/+} mouse after tamoxifen treatment.
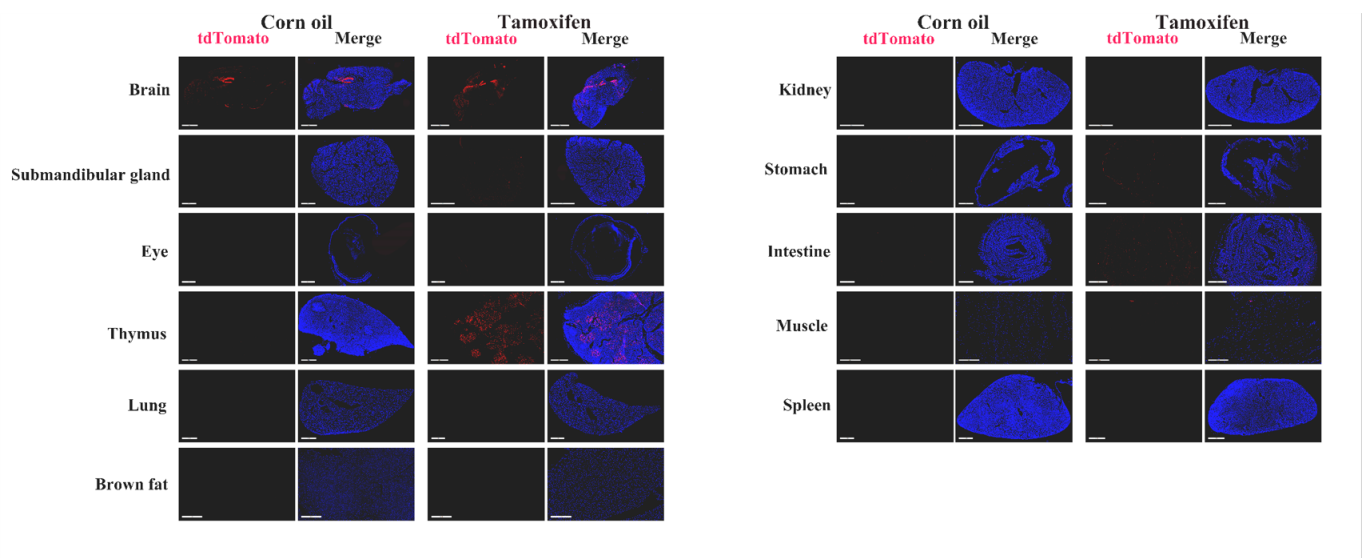
Fig. 3 Detection of tdTomato(red) in various tissues of Ascl1$^{CreERT2/+}$; Rosa26$^{tdTomato/+}$ mice. CreERT2 mediated recombination can be detected in the hippocampus and lateral ventricles after tamoxifen treatment. Besides, tamoxifen-dependent cre recombinase expression can be also detected in some cells derived from thymus and the submucosa of the stomach and small intestine, except for submandibular gland, retina, lung, brown fat, kidney, muscle and spleen. (For more detailed information please contact our technical advisor.)