

Opn4-Cre

系統名	C57BL/6Smoc- <i>Opn4</i> ^{em1(Cre-WPRE-polyA)Smoc}
SMOC番号	NM-KI-200304
維持形態	Repository Live

遺伝子の概要

Gene Symbol Opn4	Synonyms	Gm533; 1110007J02Rik
	NCBI ID	30044
	MGI ID	1353425
	Ensembl ID	ENSMUSG00000021799
	Human Ortholog	OPN4

説明

Cre-WPRE-polyA expression cassette was knocked into the *Opn4* gene start codon site. The melanopsin gene (*Opn4*) encodes a functional photopigment. When crossed with a strain carrying a gene flanked by loxP sites, the flanked gene will be removed in cells expressing cre. This strain may be useful for studying circadian rhythm regulation.

応用分野: Cre recombinase tool; Circadian rhythm regulation

*Literature published using this strain should indicate: *Opn4*-Cre mice (Cat. NO. NM-KI-200304) were purchased from Shanghai Model Organisms Center, Inc..

表現型データ

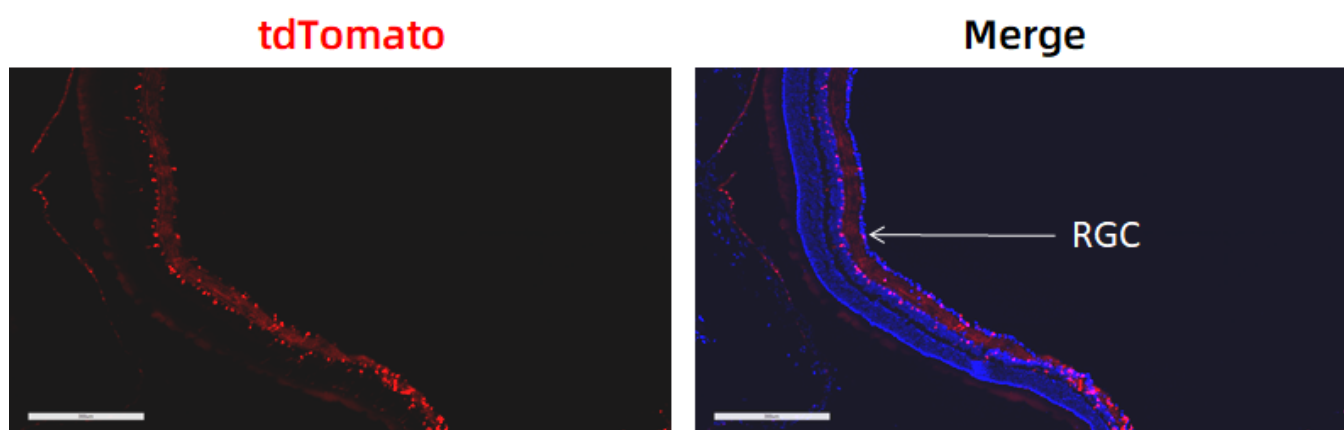


Fig. 1 Cre-mediated recombination in the eyes of $Opn4^{Cre/+}; Rosa26^{tdTomato/+}$ mouse. TdTomato(red) expression can be detected in retinal ganglion cell layer (RGC) and inner nuclear layer of $Opn4^{Cre/+}; Rosa26^{tdTomato/+}$ mouse.

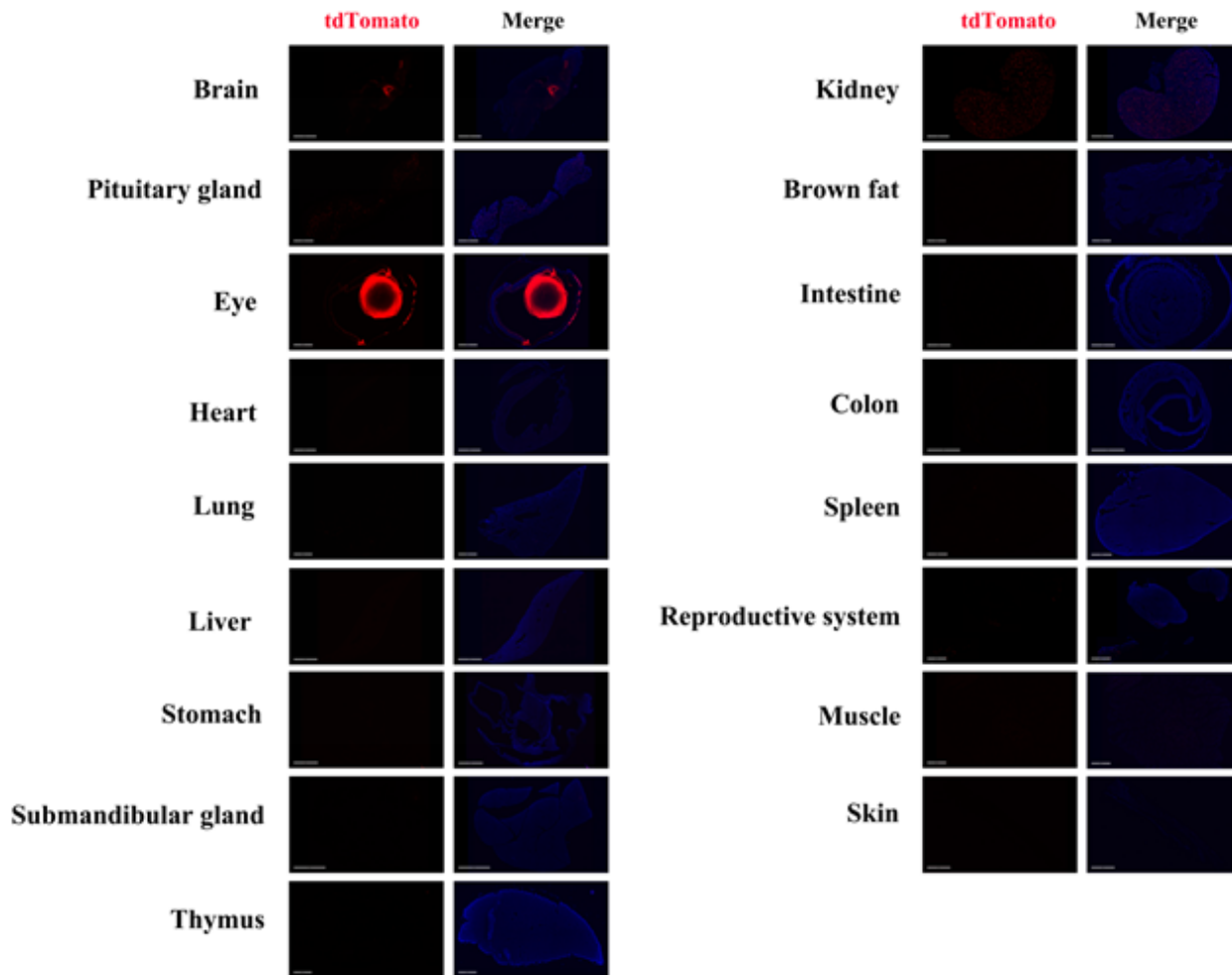


Fig. 2 Detection of tdTomato(red) in various tissues of $Opn4^{Cre/+}; Rosa26^{tdTomato/+}$ mice. Cre mediated recombination can be detected in the eyes, hippocampus, olfactory bulb, serous layer of the large intestine, testis, epididymis, pulmonary bronchial epithelial cells, kidney, thymus and pituitary gland. Tdtomato expression can not be observed in the cerebellum, heart, liver, spleen, muscle, skin, stomach, small intestine or submandibular gland. (For more detailed information please contact our technical advisor.)