

Aqp5-Cre

Nomenclature	C57BL/6Smoc- <i>Aqp5</i> ^{em1(iCre-WPRE-polyA)Smoc}
Cat. NO.	NM-KI-200062
Strain State	Embryo cryopreservation

Gene Summary

Gene Symbol Aqp5	Synonyms	-
	NCBI ID	11830
	MGI ID	106215
	Ensembl ID	ENSMUSG00000044217
	Human Ortholog	AQP5

Model Description

A iCre-WPRE-polyA expression cassette was knocked into the Aqp5 gene start codon site.

Research Application: Cre recombinase tool; Aquaporin 5 (AQP5) belongs to a family of water channel proteins that allow water to pass through the plasma membrane by osmosis. AQP5 is expressed in salivary gland and lung epithelial cells. When crossed with a reporter mice, reporter gene expression can be detected in Aqp5 positive cells. When crossed with a strain carrying a gene flanked by loxP sites, the flanked gene will be removed in cells expressing cre.

*Literature published using this strain should indicate: Aqp5-Cre mice (Cat. NO. NM-KI-200062) were purchased from Shanghai Model Organisms Center, Inc..

Validation Data

tdTomato

Merge

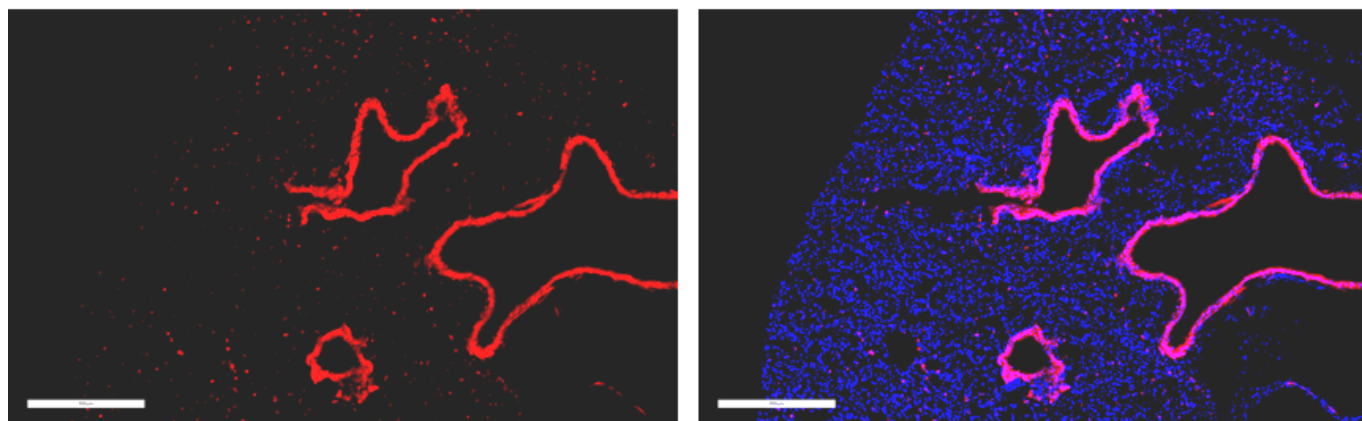


Fig. 1 Cre-mediated recombination in the lung of $Aqp5^{Cre/+}; Rosa26^{tdTomato/+}$ mouse. TdTomato(red) expression can be detected in the lung epithelial cells derived from $Aqp5^{Cre/+}; Rosa26^{tdTomato/+}$ mouse.

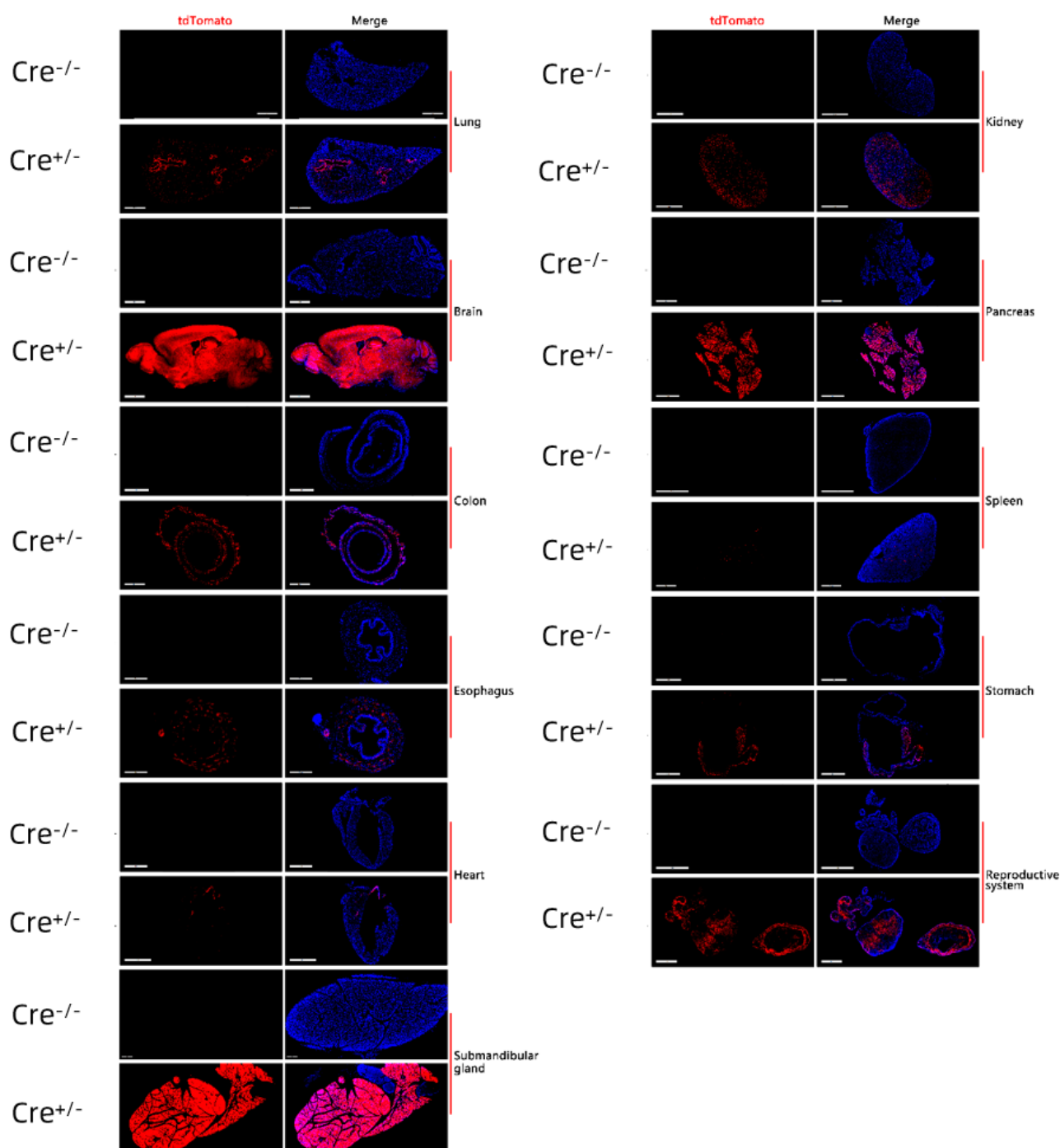


Fig. 2 Detection of tdTomato(red) in various tissues of Aqp5^{Cre/+}; Rosa26^{tdTomato/+} mice. Cre mediated recombination can be detected in lung epithelial cells, salivary gland, pancreas, brain, stomach, large intestine and esophagus. TdTomato can also be detected in individual cells of the heart, kidney, spleen, ovary and uterus. (For more detailed information please contact our technical advisor.)