

**TMEM38B Antibody**  
**Catalog # ASC11031****Specification****TMEM38B Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">Q9NVV0</a>
Other Accession	<a href="#">NP_060582</a> , <a href="#">8922461</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	TMEM38B antibody can be used for detection of TMEM38B by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.

**TMEM38B Antibody - Additional Information**

Gene ID	55151
<b>Target/Specificity</b>	
TMEM38B;	

**Reconstitution & Storage**

TMEM38B antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

TMEM38B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TMEM38B Antibody - Protein Information**

**Name** TMEM38B ([HGNC:25535](#))

**Function**

Intracellular monovalent cation channel required for maintenance of rapid intracellular calcium release. Acts as a potassium counter-ion channel that functions in synchronization with calcium release from intracellular stores (By similarity). Activated by increased cytosolic Ca(2+) levels (By similarity).

**Cellular Location**

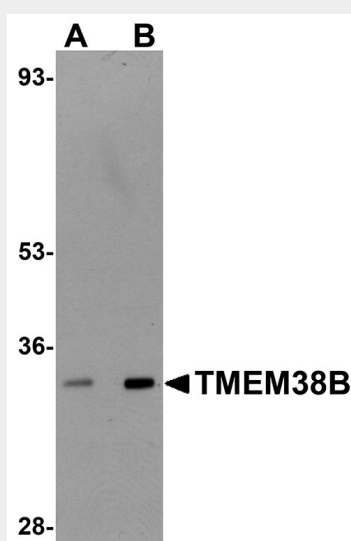
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9DAV9}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9DAV9}

## TMEM38B Antibody - Protocols

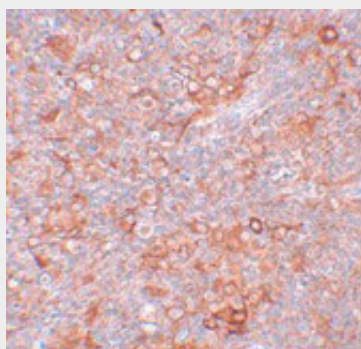
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

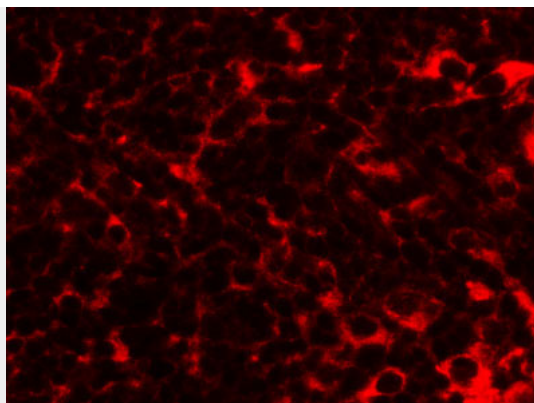
## TMEM38B Antibody - Images



Western blot analysis of TMEM38B in rat thymus tissue lysate with TMEM38B antibody at (A) 1 and (B) 2  $\mu$ g/mL.



Immunohistochemistry of TMEM38B in mouse thymus tissue with TMEM38B antibody at 5  $\mu$ g/mL.



Immunofluorescence of TMEM38B in mouse thymus tissue with TMEM38B antibody at 20  $\mu$ g/mL.

#### **TMEM38B Antibody - Background**

**TMEM38B Antibody:** TMEM38A and TMEM38B are two recently identified trimeric intracellular cation (TRIC) channel subtypes. TMEM38B is expressed in most mammalian tissues, while TMEM38A is preferentially expressed in excitable tissues such as striated muscle and brain. Mice deficient in both TMEM38A and TMEM38B suffer embryonic cardiac failure; the cardiac myocytes display severe dysfunction in SR  $\text{Ca}^{2+}$  handling, weakened  $\text{Ca}^{2+}$  release, and reduced  $\text{K}^{+}$  permeability indicating that the TRIC cation channels are likely to act as counter-ion channels that function in synchronization with  $\text{Ca}^{2+}$  release from intracellular stores. Mice that were lacking only TMEM38B however, die shortly after birth due to respiratory failure and have lungs exhibiting severe histological defect and ultrastructural abnormalities in their alveolar type II epithelial cells, indicating that TMEM38B are essential for perinatal lung maturation. Other experiments have shown that TMEM38A and TMEM38B can act with junctophilin proteins to support efficient ryanodine receptor-mediated  $\text{Ca}^{2+}$  release in muscle cells.

#### **TMEM38B Antibody - References**

Yazawa M, Ferrante C, Feng J, et al. TRIC channels are essential for  $\text{Ca}^{2+}$  handling in intracellular stores. *Nature* 2007; 448:78-82.  
Yamakazi D, Yamakazi T, and Takeshima H. New molecular components supporting ryanodine receptor-mediated  $\text{Ca}^{2+}$  release: roles of junctophilin and TRIC channel in embryonic cardiocytes. *Pharmacol. Ther.* 2009; 121:265-72.  
Yamakazi D, Yamakazi T, and Takeshima H. New molecular components supporting ryanodine receptor-mediated  $\text{Ca}^{2+}$  release: roles of junctophilin and TRIC channel in embryonic cardiocytes. *Pharmacol. Ther.* 2009; 121:265-72.