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Datasheet for 600-401-FJ7

# TMEM38B Antibody

## Overview

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| **Description:** | Anti-TMEM38B (RABBIT) Antibody - 600-401-FJ7 |
| **Item No.:** | 600-401-FJ7 |
| **Size:** | 100 µg |
| **Applications:** | ELISA, IF, IHC, WB |
| **Reactivity:** | Human, Mouse, Rat |
| **Host Species:** | Rabbit |

## Product Details

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| **Background:** | 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 Ca2+ handling, weakened Ca2+ release, and reduced K+ permeability indicating that the TRIC cation channels are likely to act as counter-ion channels that function in synchronization with Ca2+ 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 Ca2+ release in muscle cells. |
| **Synonyms:** | TMEM38B Antibody, OI14, TRICB, TRIC-B, C9orf87, D4Ertd89e, bA219P18.1, Trimeric intracellular cation channel type B, Transmembrane protein 38B |
| **Host Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |

## Target Details

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| **Gene Name:** | TMEM38B |
| **Reactivity:** | Human, Mouse, Rat |

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| **Immunogen Type:** | Conjugated Peptide |
| **Immunogen:** | Anti-TMEM38B antibody was prepared from whole rabbit serum produced by repeated immunizations with a 17 amino acid synthetic peptide from near the C-terminus of human TMEM38B. |
| **Purity/Specificity:** | Anti-TMEM38B Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with TMEM38B from other sources has not been determined. |
| **Relevant Links:** | • UniProtKB - Q9NVV0<br>• GeneID - 55751<br>• NCBI - NP_060582.1 |

## Application Details

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| **Tested Applications:** | ELISA, IF, IHC, WB |
| **Application Note:** | Anti-TMEM38B Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 33 kDa in Western Blots of specific cell lysates and tissues. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **ELISA:** | 1:10,000 - 1:20,000 |
| **IF:** | 20 µg/mL |
| **IHC:** | 5 µg/mL |
| **WB:** | 1-2 µg/mL |

## Formulation

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| **Physical State:** | Liquid (sterile filtered) |
| **Concentration:** | 1 mg/mL by UV absorbance at 280 nm |
| **Buffer:** | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| **Preservative:** | 0.02% (w/v) Sodium Azide |
| **Stabilizer:** | None |

## Shipping & Handling

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| **Shipping Condition:** | Dry Ice |

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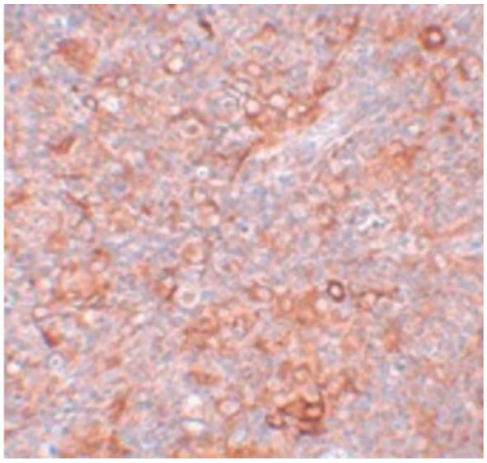
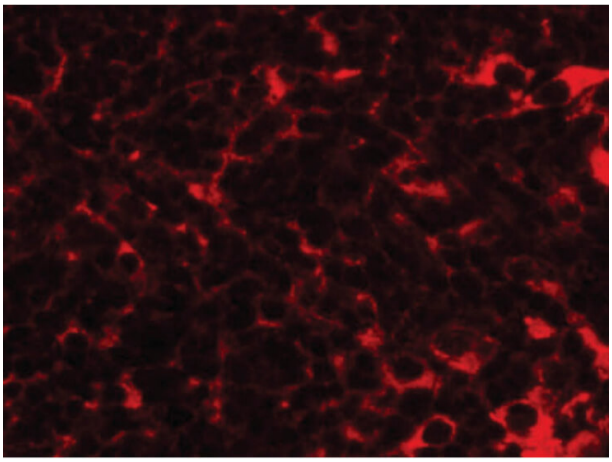
| **Storage Condition:** | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| **Expiration:** | Expiration date is one (1) year from date of receipt. |

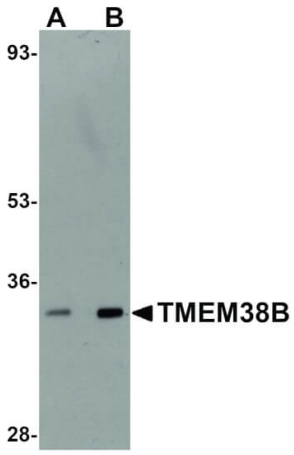
## Images



**Immunohistochemistry**
Immunohistochemistry of TMEM38B antibody. Tissue: mouse thymus tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: TMEM38B antibody at 5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: TMEM38B is a membrane protein. Staining: TMEM38B as precipitated brown signal with blue nuclear counterstain.



**Immunofluorescence Microscopy**
Immunofluorescence Microscopy of TMEM38B antibody. Tissue: Mouse thymus tissue. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: TMEM38B antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: TMEM38B is a membrane protein. Staining: TMEM38B as red fluorescent signal.




**Western Blot**

Western Blot of TMEM38B antibody. Lane 1: Rat thymus tissue lysate with TMEM38B antibody at 1 µg/mL. Lane 2: Rat thymus tissue lysate with TMEM38B antibody at 2 µg/mL. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 33 kDa, 33 kDa for TMEM38B. Other band(s): TMEM38B splice variants and isoforms.

## Disclaimer

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