

**DESCRIPTION**

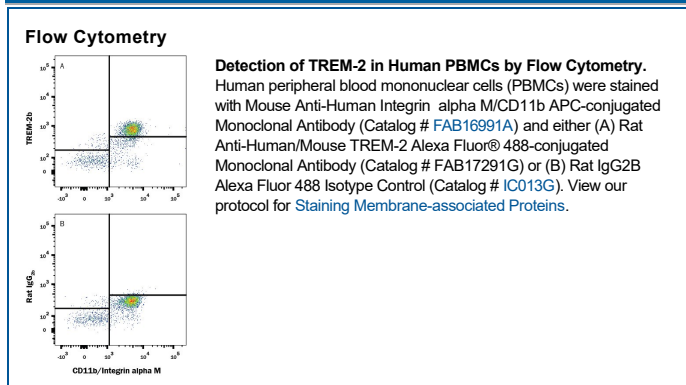
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human/Mouse  |
| <b>Specificity</b>        | Detects human and mouse TREM-2 in direct ELISAs and Western blots. Stains TREM-2 transfectants but not TREM-1 transfectants.   |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2B</sub> Clone # 237920  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse TREM-2 extracellular domain<br>Accession # Q99NH8  |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm  |
| <b>Formulation</b>        | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                       | <b>Recommended Concentration</b> | <b>Sample</b> |
|-----------------------|----------------------------------|---------------|
| <b>Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells  | See Below     |

**DATA**



**PREPARATION AND STORAGE**

|                                |   |
|--------------------------------|---|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                     |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b><br><ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

**BACKGROUND**

TREM-2 (Triggering Receptor Expressed on Myeloid cells-2) is a 35 kDa molecular weight type I transmembrane member of the TREM family and Ig superfamily. Mature human TREM-2 consists of a 156 amino acid (aa) extracellular domain (ECD) with one V-type Ig-like domain, a 21 aa transmembrane (TM) domain, and a 35 aa cytoplasmic tail. Within the ECD, human TREM-2 shares 73% and 74% aa sequence identity with mouse and rat TREM-2, respectively. Two closely related transcripts were reported in mouse and designated TREM-2a and TREM-2b. Soluble forms of the TREM-2 ECD are generated by alternative splicing or proteolytic cleavage, and the cytoplasmic domain can be liberated by gamma-Secretase mediated intramembrane cleavage. It is a pattern recognition receptor that binds anionic ligands. A positively charged lysine within the transmembrane segment allows association with the signal adapter protein, DAP12 to deliver an activating signal that plays a role in both innate and adaptive immune responses, including inhibition of macrophage activation. TREM-2 is expressed on macrophages, immature myeloid dendritic cells, osteoclasts, microglia, and adipocytes. It promotes the differentiation and function of osteoclasts, the production of inflammatory cytokines by adipocytes, insulin resistance, and the phagocytic clearance of bacteria. In the CNS, TREM-2 binds to ApoE, ApoA1, and ApoB and mediates the clearance of apoptotic neurons, amyloid plaques, and cell debris following demyelination. TREM-2 also interacts with and modifies signaling through Plexin A1 on dendritic cells and osteoclasts. Mutations in TREM-2 or DAP12 are associated with the development of Alzheimer's disease and Nasu-Hakola disease (NHD/PLOSL) which is characterized by presenile dementia and bone cysts. Soluble TREM-2 is elevated in cerebrospinal fluid of patients with active multiple sclerosis (MS), and TREM-2 blockade exacerbates disease symptoms in the experimental EAE model of MS.

# Human/Mouse TREM2 Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG<sub>2B</sub> Clone # 237920

Catalog Number: FAB17291G

100 µg

## PRODUCT SPECIFIC NOTICES

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