

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human TREM119 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 1023426
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Chinese Hamster Ovary cell line, CHO derived human TREM119 Arg26-Met96 Accession # Q4V9L6.1
<b>Conjugate</b>	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.  *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	HEK293 Human Cell Line transfected with Human TMEM119 and eGFP

**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. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> • 12 months, 2 to 8 °C under sterile conditions after opening.

**BACKGROUND**

TMEM119 (Transmembrane Protein 119, also known as Osteoblast Induction Factor or OBIF), is an approximately 38-kDa type 1 transmembrane protein that is predominantly expressed in osteoblasts and is upregulated during osteoblastic differentiation (1, 2). TMEM119 is also expressed in a cell line of microglia, and TMEM119 immunoreactivity is observed in a specific subset of microglia in brains of neurodegenerative diseases, such as Alzheimer's disease (3). Mature human TMEM119 consists of a 71 amino acid (aa) extracellular domain (ECD), a 21 aa transmembrane segment, and a 166 aa cytoplasmic domain. Within the ECD, human TMEM119 shares 78% and 75% aa sequence identity with mouse and rat TMEM119, respectively. TMEM-119 is involved in the osteoblast differentiation and bone development by acting as a ligand and has been reported to contribute to the proliferation, migration, and invasion of osteosarcoma cells, as well as functioning as an oncogene in osteosarcoma (3, 4).

**References:**

1. Jiang, Z.H. et al. (2017) *Expt & Mol Med.* **49**:e329.
2. Mizuhashi, K. et al. (2012) *Dev. Growth Differ.* **54**:474.
3. Satoh, J. et al. (2016) *Neuropathol.* **36**:39.
4. Kanamoto, T. et al. (2009) *BMC Develop. Biol.* **9**:70.

**PRODUCT SPECIFIC NOTICES**

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