

TREM-2 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P71381
Synonyms:	Triggering Receptor Expressed on Myeloid Cells 2b; Triggering receptor expressed on myeloid cells 2; TREM-2; Triggering receptor expressed on monocytes 2; Trem2; Trem2a; Trem2b; Trem2c; TREM-2b
Species:	Mouse
Source:	HEK293
Accession:	Q99NH8-1 (L19-P168)
Gene ID:	83433
Molecular Weight:	Approximately 27-40 kDa due to the glycosylation.

PROPERTIES

AA Sequence	L N T T V L Q G M A G Q S L R V S C T Y D A L K H W G R R K A W C R Q L G E E G P C Q R V V S T H G V W L L A F L K K R N G S T V I A D D T L A G T V T I T L K N L Q A G D A G L Y Q C Q S L R G R E A E V L Q K V L V E V L E D P L D D Q D A G D L W V P E E S S S F E G A Q V E H S T S R N Q E T S F P
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Mouse TREM2, at 1 µg/mL (100 µL/well) can bind Anti-TREM2 Antibody, the ED ₅₀ is ≤46.44 ng/mL, corresponding to a specific activity is ≥2.153×10 ⁴ units/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4 or 20 mM Tris-HCl, 8% Trehalose, 2% Mannitol, 0.05% Tween 80, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	TREM-2 Protein forms a receptor signaling complex with TYROBP, mediating signaling and cell activation upon ligand binding. It acts as a receptor for amyloid-beta protein 42, facilitating its uptake and degradation by microglia, resulting in microglial activation, proliferation, migration, apoptosis, and cytokine expression. Additionally, TREM-2 serves as a receptor for lipoprotein particles and apolipoproteins, enhancing their uptake in microglia. It binds phospholipids and regulates
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microglial proliferation, phagocytosis of apoptotic neurons, and response to oxidative stress. Furthermore, TREM-2 suppresses PI3K and NF-kappa-B signaling, promotes anti-apoptotic NF-kappa-B signaling during oxidative stress, and plays a role in microglial MTOR activation and metabolism. It is involved in age-related changes in microglial numbers and triggers immune responses in macrophages and dendritic cells. TREM-2 also mediates cytokine-induced multinucleated giant cell formation and is implicated in osteoclast differentiation. The protein interacts with TYROBP, and this interaction is crucial for stabilizing the TREM-2 C-terminal fragment.

Caution: Product has not been fully validated for medical applications. For research use only.

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