

# Product Data Sheet

# TREM-2 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P72438
Synonyms:	Ig-like domain-containing protein; TREM2; Triggering receptor expressed on myeloid cells 2
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_005553122.1 (H19-S174)
Gene ID:	102133279
Molecular Weight:	28-40 kDa

PROPERTIES	
AA Sequence	HNTTVFQGVEGQSLQVSCPYDSMKHWGRRKAWCRQLGEKGPCQRVVSTHNLWLLSFLRRRNGSTAITDDTLGGTLTITLRNLQPHDAGFYQCQSLHGSEADTLRKVLVEVLADPLDHRDAGDLWVPGESESFEDAHVEHSISRSLLEGEIPFPPTS
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> 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) 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 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

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

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