



# Recombinant Protein Technical Manual

## Recombinant Mouse TREM2 Protein (Fc Tag)

RPES3572

### Product Data:

**Product SKU:** RPES3572

**Size:** 10µg

**Species:** Mouse

**Expression host:** Human Cells

**Uniprot:** Q99NH8

### Protein Information:

**Molecular Mass:** 43.7 kDa

**AP Molecular Mass:** 60kDa

**Tag:** C-Fc

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**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

## Immunogen Information:

**Sequence:** Leu19-Pro168

## Background:

Triggering receptor expressed on myeloid cells-2 (TREM-2) is a cell surface receptor primarily expressed on macrophages, osteoclasts, microglia and dendritic cells. TREM-2 is one member of the TREM family, inhibiting the releasing of inflammatory mediators, so it is an important in vivo anti-inflammatory receptor. TREM-2 consists of an 18 aa signal sequence, a 153 aa extracellular domain (ECD) with one V-type Ig-like domain, a 21 aa transmembrane (TM) domain, and a 35 aa cytoplasmic tail. A soluble form of TREM-2 (TREM-2b) created by alternate splicing diverges at aa 161. TREM-2 transduces intracellular signals through the adaptor DAP12. After binding of TREM-2 with ligand, the TREM-2/DAP12 (dead-cell-activated-receptor-associated protein)-mediated signal transduction pathway causes a series of intracellular protein tyrosine phosphorylation reactions and enzymatic reactions, which then activate the myeloid cells and participate T cell responses.