

# Human TREM2 Protein

Cat. No. TRM-HM102

## Description

<b>Source</b>	Recombinant Human TREM2 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains His19-Ser174.
<b>Accession</b>	Q9NZC2-1
<b>Molecular Weight</b>	The protein has a predicted MW of 18.5 kDa. Due to glycosylation, the protein migrates to 28-40 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE

## Formulation and Storage

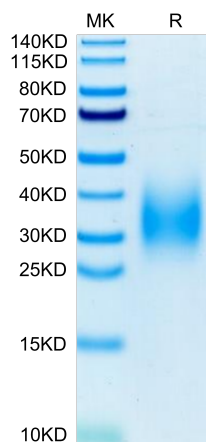
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

TREM-2 (Triggering Receptor Expressed on Myeloid cells-2) is a 35 kDa 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. TREM-2 forms a receptor signaling complex with TYROBP which mediates signaling and cell activation following ligand binding (PubMed:10799849). Acts as a receptor for amyloid-beta protein 42, a cleavage product of the amyloid-beta precursor protein APP, and mediates its uptake and degradation by microglia.

## Assay Data

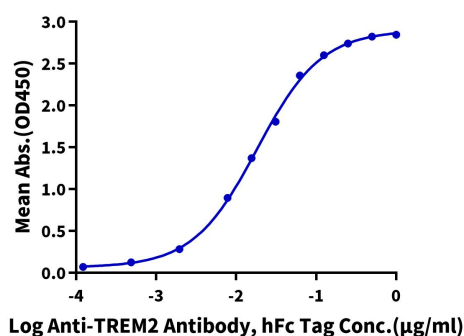
### Bis-Tris PAGE



Human TREM2 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### ELISA Data

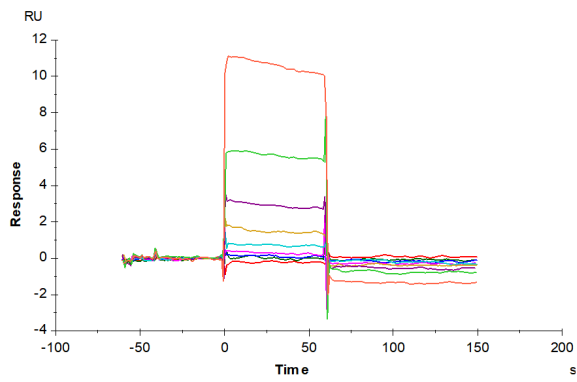
**Human TREM2, His Tag ELISA**  
0.2 $\mu\text{g}$  Human TREM2, His Tag Per Well



Immobilized Human TREM2, His Tag at 2 $\mu\text{g}/\text{ml}$  (100 $\mu\text{l}/\text{well}$ ) on the plate. Dose response curve for Anti-TREM2 Antibody, hFc Tag with the EC<sub>50</sub> of 18.3ng/ml determined by ELISA (QC Test).

Assay Data

SPR Data



Human APOE3, hFc Tag captured on CM5 Chip via Protein A can bind Human TREM2, His Tag with an affinity constant of 20.24  $\mu$ M as determined in SPR assay (Biacore T200).