

## Recombinant Human TREM1 Protein (His &Fc Tag)

**Catalog Number:** PKSH031561

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

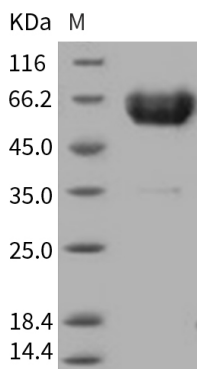
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human TREM1 protein Met 1-Arg 200, with an C-terminal His & Fc
<b>Calculated MW</b>	48.3 kDa
<b>Observed MW</b>	60-65 kDa
<b>Accession</b>	NP_061113.1
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 97 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

TREM1 (triggering receptor expressed on myeloid cells) is a type I transmembrane protein with a single Ig-like domain; and is selectively expressed on blood neutrophils and a subset of monocytes. As a member of the growing family of receptors related to NK cell receptors; TREM1 activates downstream signaling events with the help of an adapter protein called DAP12. Expression of TREM1 is up-regulated by bacterial LPS; a ligand for TLR4; as well as lipoteichoic acid. Although its natural ligand has not been identified; engagement of TREM1 with agonist mAbs triggers secretion of the proinflammatory cytokines TNF- $\alpha$  and IL-1 $\beta$ ; as well as chemokines such as IL-8 and monocyte chemoattractant protein (MCP)-1. Intracellularly, TREM1 induces Ca<sup>2+</sup> mobilization and tyrosine phosphorylation of extracellular signal-related kinase 1 (ERK1); ERK2 and phospholipase C- $\gamma$ . In an animal model of LPS-induced septic shock; blockade of TREM1 signaling inhibited hyperresponsiveness and death. Thus; it has been demonstrated that TREM1 performs a critical function in immune responses involved in host defense against microbial challenges; and is suggested to be a potential therapeutic target for septic shock.

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