



Recombinant Protein Technical Manual
Recombinant Human TREM1 Protein (His & Fc Tag)
RPES3973

Product Data:

Product SKU: RPES3973

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_061113.1

Protein Information:

Molecular Mass: 48.3 kDa

AP Molecular Mass: 60-65 kDa

Tag: C-His & Fc

Bio-activity:

Purity: > 97 % as determined by reducing 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 sterile PBS, pH 7.4

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

Application:

Synonyms: Triggering Receptor Expressed on Myeloid Cells 1; TREM; Triggering Receptor Expressed on Monocytes 1; CD354; TREM1

Immunogen Information:

Sequence: Met 1-Arg 200

Background:

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- α and IL β , as well as chemokines such as IL-8 and monocyte chemoattractant protein (MCP). Intracellularly, TREM1 induces Ca²⁺ mobilization and tyrosine phosphorylation of extracellular signal-related kinase 1 (ERK1), ERK2 and phospholipase C- γ . 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.