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**Recombinant Human TREM1 Protein (His & Fc tag)****Cat.NO.: TP08020**

3th Edition

**Synonyms:**CD354;TREM-1

**Description:**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- $\beta$ . 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.

**Form:**PBS**Molecular Weight:**48.3 kDa**Sequences:**Met 1-Arg 200**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1  $\mu$ g of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.