



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD354 Protein
Catalog Number: hRP-1746
Manufacturer: LD Biopharma, Inc.

Introduction

Human Triggering receptor expressed on myeloid cell1 (TREM1, also named as CD354) gene encodes a receptor belonging to the Ig superfamily that is expressed on myeloid cells. This protein amplifies neutrophil and monocyte-mediated inflammatory responses triggered by bacterial and fungal infections by stimulating release of pro-inflammatory chemokines and cytokines, as well as increased surface expression of cell activation markers. It is a crucial mediator of septic shock.

Full-length extracellular domain of human CD354 extracellular domain cDNA (21 - 2305aa, Isoform-1) was constructed by gene synthesis with codon optimization technology and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E Coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CD354 (TREM1)
Accession Number: NP_061113.1
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Burmistrova,A.L. et al., *Soluble form of trigger receptor expressed on myeloid cells-1 as a marker of burn wound mixed infection.* Zh. Mikrobiol. Epidemiol. Immunobiol. 6, 63-68 (2013)



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Dopheide JF, et al., *Critical limb ischaemia is characterised by an increased production of whole blood reactive oxygen species and expression of TREM-1 on neutrophils*. *Atherosclerosis* 229 (2), 396-403 (2013)

Shi JX, et al., *Diagnostic value of sTREM-1 in bronchoalveolar lavage fluid in ICU patients with bacterial lung infections: a bivariate meta-analysis*. *PLoS ONE* 8 (5), E65436 (2013)

Bleharski JR, et al., *A role for triggering receptor expressed on myeloid cells-1 in host defense during the early-induced and adaptive phases of the immune response*. *J. Immunol.* 170 (7), 3812-3818 (2003)

Applications

1. May be used for in vitro CD354 mediated neutrophil and monocyte-related inflammatory responses regulatory study with this protein as either soluble factor or coating matrix protein.
2. May be used for CD354 protein-protein interaction assay
3. Potential diagnostic biomarker for systematic infections, such as bacterial lung infection, et al.
4. May be used for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFATKLTEEKYELKEGQTLDVKCDYTLKFASSQKAW
QIIRDGEMPKTLACTERPSKNSHPVQVGRIILEDYHDHGLLRVVMVNLQVEDSGLYQCVIYQPP
KEPHMLFDRIRLVVTKGFSGTPGSNENSTQNVYKIPPTTTKALCPLYTSPRTVTQAPPKSTADV
STPDSEINLTNVTDIIRVPVFN