Data Sheet (Cat.No.TMPY-01648)

TargetMol

TREML2 Protein, Human, Recombinant (His)

General Information

Synonyms:	TLT2;dJ238O23.1;triggering receptor expressed on myeloid cells like 2;TLT-2;MGC149716; FLJ13693;C6orf76;UNQ6268/PRO20473;MGC149715
Protein Construction:	A DNA sequence encoding the human TREML2 (NP_079083.2) extracellular domain (Met 1-Ser 268) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Gly 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q5T2D2
Molecular Weight:	28.5 kDa (predicted); 55-60 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.2 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Trem-like transcript 2 protein, also known as Triggering receptor expressed on myeloid cells-like protein 2, TREML2 and TLT2, is a single-pass type I membrane protein that contains one Ig-like V-type (immunoglobulin-like) domain. TREML2 is detected in cultured B cells, T cell leukemia and monocyte leukemia. TREML2 is expressed constitutively on CD8 T-cells and induced on CD4 T-cells after activation. TREML2 is a cell surface receptor that may play a role in the innate and adaptive immune response. TREML2 acts as a counter-receptor for CD276 and

interaction with CD276 on T-cells enhances T-cell activation. Murine B7-H3 is specifically bound to Triggering receptor expressed on myeloid cells (TREM)-like transcript 2 (TLT-2, TREML2). TREML2 was expressed on CD8(+) T cells constitutively and on activated CD4(+) T cells. Stimulation with B7-H3 transfectants preferentially up-regulated the proliferation and IFN-gamma production of CD8(+) T cells. Transduction of TREML2 into T cells resulted in enhanced IL-2 and IFN-gamma production via interactions with B7-H3. There may be a direct interaction between B7-H3 and TREML2 that preferentially enhances CD8(+) T cell activation.

Reference

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Clark HF. et al., 2003, Genome Res. 13: 2265-70.
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