Data Sheet (Cat.No.TMPY-06918)

TargetMol

IL-T4 Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	ILT-4;MIR10;LIR-2;leukocyte immunoglobulin like receptor B2;CD85D;LIR2;ILT4;MIR-10
Protein Construction:	A DNA sequence encoding the human LILRB2 (AAH36827.1) (Met1-Val461) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Gln 22
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAH36827.1
Molecular Weight:	51.06 kDa (predicted); 63.9 kDa (reducing conditions)

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. ≥ 95 % as determined by SEC-HPLC.
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 20 mM Tris, 150 mM NaCl, 0.02% Tween 80, 10% Glycerol, pH 8.5. 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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

ILT4, also known as LILRB2, is a member of the subfamily B class of LIR receptors which contain two or four extracellular immunoglobulin domains, a transmembrane domain, and two to four cytoplasmic immunoreceptor

tyrosine-based inhibitory motifs (ITIMs). ILT4 gene is a member of the leukocyte immunoglobulin-like receptor (LIR) family. Multiple transcript variants encoding different isoforms have been found for the ILT4 gene. ILT4 is expressed on immune cells where it binds to MHC class I molecules on antigen-presenting cells and transduces a negative signal that inhibits stimulation of an immune response. It is thought to control inflammatory responses and cytotoxicity to help focus the immune response and limit autoreactivity.

Reference

Colonna M., et al.,(1997), A common inhibitory receptor for major histocompatibility complex class I molecules on human lymphoid and myelomonocytic cells. J. Exp. Med. 186:1809-1818.

Borges L., et al., (1997), A family of human lymphoid and myeloid Ig-like receptors, some of which bind to MHC class I molecules.J. Immunol. 159:5192-5196.

Grimwood J., et al.,(2004), The DNA sequence and biology of human chromosome 19.Nature 428:529-535.