

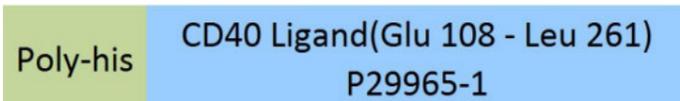
Synonym

CD40LG,CD154,CD40L,HIGM1,IGM,IMD3,T-BAM,TNFSF5,TRAP,gp39

Source

Human CD40 Ligand, His Tag (CDL-H5248) is expressed from human 293 cells (HEK293). It contains AA Glu 108 - Leu 261 (Accession # P29965-1).

Predicted N-terminus: His

Molecular Characterization

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 19.0 kDa. The protein migrates as 23 kDa and 24 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

EndotoxinLess than 1.0 EU per μg by the LAL method.**Purity**

>95% as determined by SDS-PAGE.

FormulationLyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

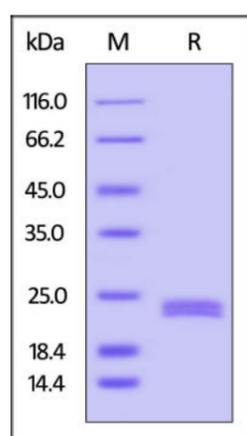
Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**For long term storage, the product should be stored at lyophilized state at -20°C or lower.*Please avoid repeated freeze-thaw cycles.*

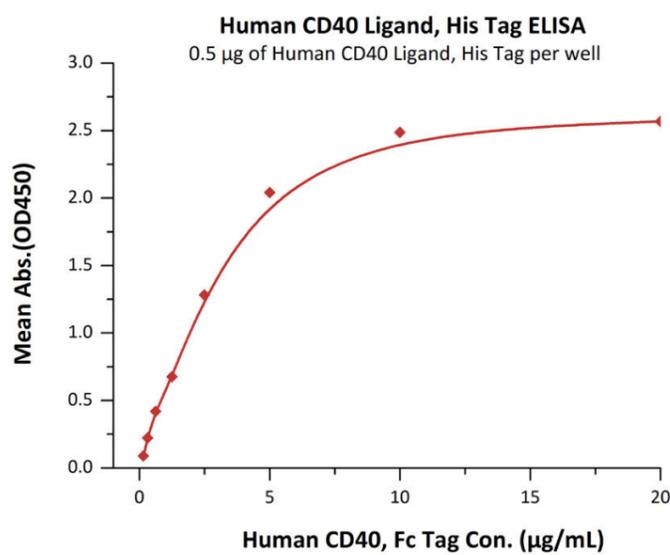
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human CD40 Ligand, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Human CD40 Ligand, His Tag (Cat. No. [CDL-H5248](#)) at 5 µg/mL (100 µL/well) can bind Human CD40, Fc Tag (Cat. No. [CD0-H5253](#)) with a linear range of 0.156-5 µg/mL (QC tested).

Background

CD40 ligand is also known as CD40L, CD154, TNFSF5 and T-cell antigen Gp39, is a single-pass type I I membrane protein which belongs to the TNF superfamily of molecules. CD40 ligand is expressed predominantly on activated CD4⁺ T lymphocytes, and also found in other types of cells, including platelets, mast cells, macrophages, basophils, NK cells, B lymphocytes, as well as non-haematopoietic cells (smooth muscle cells, endothelial cells, and epithelial cells). Although all monomeric, dimeric and trimeric forms of soluble CD40 ligand can bind to CD40, the trimeric form of soluble CD40 ligand has the most potent biological activity through oligomerization of cell surface CD40, a common feature of TNF receptor family members. CD40 ligand binds to CD40 on antigen-presenting cells (APC), which leads to many effects depending on the target cell type. In general, CD40 ligand plays the role of a costimulatory molecule and induces activation in APC in association with T cell receptor stimulation by MHC molecules on the APC. In total CD40 ligand has three binding partners: CD40, $\alpha 5\beta 1$ integrin and $\alpha IIb\beta 3$. CD40 ligand regulates B cell function by engaging CD40 on the B cell surface. A defect in this gene results in an inability to undergo immunoglobulin class switch and is associated with hyper IgM syndrome.

References

- (1) [Schönbeck U, Libby P, 2001, Cell. Mol. Life Sci. 58 \(1\): 4-43.](#)
- (2) [Furman M.I. et al., 2004, J. Am. Coll. Cardiol. 43: 2319-25.](#)
- (3) [Spriggs, M.K. et al., 1992, J. Exp. Med. 176:1543.](#)
- (4) [Fanslow, W.C. et al., 1994, Seminars in Immunology 6:267.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.