

Human CD40L / CD154 / TNFSF5 Protein (His Tag)

Catalog Number: 10239-H08E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

RP3-527F8.3, CD154, CD40L, HIGM1, IGM, IMD3, T-BAM, TNFSF5, TRAP, gp39, hCD40L

Protein Construction:

A DNA sequence encoding the soluble form of human CD40L (NP_000065.1) (Glu 108-Leu 261) was expressed with an initial Met at the N-terminus and a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio-Activity

Measured by its binding ability in a functional ELISA .

- 1. Immobilized human CD40 at 2 µg/ml (100 µl/well) can bind biotinylated human CD40L with a linear range of 15.6-500 ng/ml .**
- 2. Immobilized human CD40 / Fc at 2 µg/ml (100 µl/well) can bind biotinylated human CD40L with a linear range of 7.8-125 ng/ml.**

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human CD40L consists of 161 amino acids and has a calculated molecular mass of 17.7 kDa. It migrates as an 18 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4, 10% glycerol

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

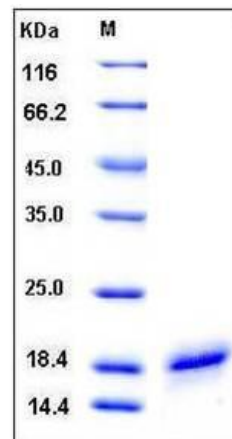
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

CD40 ligand, also known as CD40-L, T-cell antigen Gp39, TNF-related activation protein, Tumor necrosis factor ligand superfamily member 5, CD154, CD40L and TNFSF5, is a single-pass type II membrane protein which belongs to the tumor necrosis factor family. CD40L (CD154 / TNFSF5) is specifically expressed on activated CD4+ T-lymphocytes. The soluble form of CD40L (CD154 / TNFSF5) is derived from the membrane form by proteolytic processing. N-linked glycan is a mixture of high mannose and complex type. Glycan structure does not influence binding affinity to CD40. Release of soluble CD40L from platelets is partially regulated by GP IIb/IIIa, actin polymerization, and an matrix metalloproteinases (MMP) inhibitor-sensitive pathway. CD40L (CD154 / TNFSF5) mediates B-cell proliferation in the absence of co-stimulus as well as IgE production in the presence of IL-4. It is involved in immunoglobulin class switching. Defects in CD40L are the cause of X-linked immunodeficiency with hyper-IgM type 1 (HIGM1), also known as X-linked hyper IgM syndrome (XHIM). It is an immunoglobulin isotype switch defect characterized by elevated concentrations of serum IgM and decreased amounts of all other isotypes.

References

1. Korthauer U. et al., 1993, Nature 361: 539-41.
2. Lin Q. et al., 1996, J. Clin. Invest. 97: 196-201.
3. Seyama K. et al., 1998, Blood 92: 2421-34.
4. Khandekar S.S. et al., 2001, Protein Expr. Purif. 23: 301-10.
5. Furman M.I. et al., 2004, J. Am. Coll. Cardiol. 43: 2319-25.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>