

Human CD153 / CD30L / TNFSF8 Protein (Fc Tag)

Catalog Number: 10040-H01H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD153; CD30L; CD30LG

Protein Construction:

A DNA sequence encoding the extracellular domain (Gln 63-Asp 234) of human CD30 Ligand (NP_001235.1) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human CD30L-hFc (Cat: 10040-H01H) at 2 µg/ml (100 µl/well) can bind human CD30/TNFRSF8-Fch (Cat: 10777-H03H), the EC₅₀ of human CD30/TNFRSF8-Fch is 15-60 ng/mL.

2. Immobilized Recombinant Human CD30 Ligand/TNFSF8 Protein (hFc Tag) (Cat: 10040-H01H) at 5 µg/mL (100 µL/well) can bind Recombinant Human CD30 / TNFRSF8 Protein (His & AVI Tag), Biotinylated (Cat: 10777-H49H-B), the EC₅₀ is 26-78 ng/mL (Routinely tested).

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Predicted N terminal: Arg 23

Molecular Mass:

The recombinant human Fc/CD30L is a disulfide-linked homodimeric protein. The reduced monomer consists of 429 amino acids and has a predicted molecular mass of 47.8 kDa. As a result of glycosylation, the apparent molecular mass of rh Fc/CD30L monomer is approximately 60-65 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

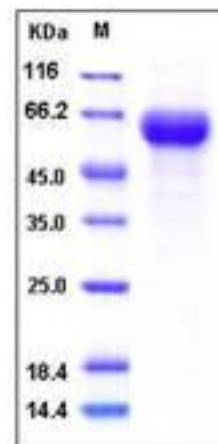
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CD3 ligand (CD3L), also known as CD153 and TNFSF8, is a membrane-associated glycoprotein belonging to the TNF superfamily and TNFR superfamily, and is a specific ligand for CD3/TNFRSF8 originally described as a cell surface antigen and a marker for Hodgkin lymphoma and related hematologic malignancies. CD3L is a type-II membrane glycoprotein expressed on activated T cells, stimulated monocyte-macrophages, granulocytes, eosinophils, and some Burkitt-like lymphoma cell lines. CD3L is capable of transducing signals through CD3 on different CD3+ lymphoma cell lines, and mediates pleiotropic biologic effects including cell proliferation, activation, differentiation, as well as cell death by apoptosis. CD3-CD3 ligand interaction has been suggested to have a pathophysiologic role in malignant lymphomas, particularly Hodgkin disease, large cell anaplastic lymphomas and Burkitt lymphomas, and is also involved in activation and functioning of the T cell-dependent immune response. Thus, CD153 and its receptor CD3 are regarded as therapeutic targets in hematologic malignancies, autoimmune and inflammatory diseases.

References

1. Hargreaves PG, et al. (2002) Soluble CD30 binds to CD153 with high affinity and blocks transmembrane signaling by CD30. *Eur J Immunol.* 32(1): 163-73.
2. Blazar BR, et al. (2004) CD30/CD30 ligand (CD153) interaction regulates CD4+ T cell-mediated graft-versus-host disease. *J Immunol.* 173(5): 2933-41.
3. Oflazoglu E, et al. (2009) Targeting CD30/CD30L in oncology and autoimmune and inflammatory diseases. *Adv Exp Med Biol.* 647: 174-85.