

Animal-Free Recombinant Human sCD40 Ligand

Catalog # PBG10548

Specification

Animal-Free Recombinant Human sCD40 Ligand - Product Information

Animal-Free Recombinant Human sCD40 Ligand - Additional Information

Description

CD40, a member of the TNF receptor family, is a cell surface protein expressed on B cells, dendritic cells, monocytes, thymic epithelial cells and, at low levels, on T cells. Signaling though CD40 plays an important role in the proliferation and differentiation of B cells, and is critical for immunoglobulin (Ig) class switching. The membrane-anchored CD40-Ligand is expressed almost exclusively on activated CD4+ T lymphocytes. Failure to express CD40L leads to "immunodeficiency with hyper-IgM", a disease characterized by failure to produce IgG, IgA and IgE. The human CD40L gene codes for a 261 amino acid type II transmembrane protein, which contains a 22 amino acid cytoplasmic domain, a 24 amino acid transmembrane domain, and a 215 amino acid extracellular domain. The soluble form of CD40L is an 18 kDa protein comprising the entire TNF homologous region of CD40L and is generated in vivo by an intracellular proteolytic processing of the full length CD40L. Recombinant human soluble CD40 ligand is a 16.3 kDa protein containing 149 amino acid residues comprising the receptor binding TNF-like domain of CD40L.

BiologicalActivity

Assay #1: Determined by the stimulation of IL-12 induction by human PBMCs.

Assay #2: Determined by the dose-dependent stimulation of IL-8
production by human PBMC. The expected ED₅₀ for this effect is 5-10 ng/ml. Note: Results may vary with PBMC donors.

Authenticity

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

Endotoxin

Endotoxin level is $<0.1 \text{ ng}/\mu\text{g}$ of protein ($<1\text{EU}/\mu\text{g}$).

Protein Content

Verified by UV Spectroscopy and/or SDS-PAGE gel.

Storage

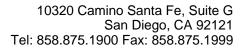
-20°C

Precautions

Animal-Free Recombinant Human sCD40 Ligand is for research use only and not for use in diagnostic or therapeutic procedures.

Animal-Free Recombinant Human sCD40 Ligand - Protocols

Provided below are standard protocols that you may find useful for product applications.





• Western Blot

- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Animal-Free Recombinant Human sCD40 Ligand - Images