

**Animal-Free Recombinant Human sCD40 Ligand**  
**Catalog # PBG10548****Specification**

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**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 through 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.

**Biological Activity**

**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 ED<sub>50</sub> 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 ng/ µg of protein (<1EU/ µg).

**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](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Animal-Free Recombinant Human sCD40 Ligand - Images**