

Recombinant Human sCD40 Ligand (soluble CD40 Ligand)

Product 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.

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Activity	<u>Assay 1:</u> N/A <u>Assay 2:</u> Typically 5-10 ng/mL ED50
Purity	≥98%
Endotoxin	<1.0 EU/μg
Molecular Mass	16.3 kDa
Formulation	10mM Sodium Phosphate, pH 7.5
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

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.

AA Sequence

MQKGDQNPQI	AAHVISEASS	KTTSVLQWAE
KGYTMSNNL	VTLENGKQLT	VKRQGLYYIY
AQVTFCSNRE	ASSQAPFIAS	LWLKSPGRFE
RILLRAANTH	SSAKPCGQQS	IHLGGVFELQ
PGASVFNVT	DPSQVSHGTG	FTSFGLLKL

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in 5-10 mM Sodium Phosphate, pH 7.5 to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

Limited Use and Restrictions

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