

Recombinant Human Soluble CD40 Ligand

Catalog # FL165

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 1 EU/ μ g of rHusCD40L protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The ED50 as determined by the dose-dependent stimulation of IL-8 production by human PBMC is less than 5-10 ng/ml.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM PB, with 150 mM NaCl, pH 7.0.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	P29965 Met113-Leu261
Amino acid sequence	MQKGDQNPQIAAHVISEASSKTTSVLQWAEKGYTMSNNLVTLENGKQLTVKRQGLYYIYAQVTFCSNREASSQAPFIASLWLKSPGRFERILLRAANTHSSAKPCGQSQSIHLGGVFELQPGASVFNVTDPQVSHGTGFTSFGLLKL
Molecular weight	Approximately 16.3 kDa, a single non-glycosylated polypeptide chain containing 149 amino acids.
Synonyms	soluble CD40 Ligand, TNFSF5, TRAP, CD154, Gp39, T-BAM
Stability & Storage	For long term storage, the product should be stored $\leq -20^{\circ}\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Human Soluble CD40 Ligand is for research use only and not for use in diagnostic or therapeutic procedures.

Background

CD40 ligand is a 261 amino acid type II transmembrane glycoprotein belonging to the TNF family and can be cleaved into two chains: the CD40 ligand membrane form and CD40 ligand soluble form. It is primarily expressed on activated CD4⁺ T lymphocytes, and also found in other types of cells, like NK cells, mast cells, basophils and eosinophils. In total CD40 ligand has three binding partners: CD40, $\alpha 5\beta 1$ integrin and $\alpha \text{Ib}\beta 3$. It mediates a range of activities on B cells including induction of activation-associated surface antigen, entry into cell cycle, isotype switching and Ig secretion and memory generation. CD40-CD40L interaction also plays important roles in monocyte activation and dendritic cell maturation. The soluble form of CD40L is an 18kDa 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 16.3kDa protein containing 149 amino acid residues comprising the receptor binding TNF-like domain of CD40L.

