

Active GMP Recombinant Human CD40LG protein

Cat. No. CD40LG-4349HG Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD40LG was produced in E. coli using non-animal reagents in an animal-free facility under cGMP guidelines.
Species	Human
Source	E.coli
Description	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 $\alpha 11\beta 3$. 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.
Form	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.0.
Bio-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.
Molecular Mass	Approximately 16.3 kDa, a single non-glycosylated polypeptide chain containing 149

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	amino acids.
AA Sequence	MQKGDQNPQIAAHVISEASSKTTSVLQWAEKGYTMSNNLVTLENGKQLTVKRQGL YYIYAQVTFCSNREASSQAPFIASLWLKSPGRFERILLRAANTHSSAKPCGQQSIHLG GVFELQPGASVFNVTDPSSQVSHGTGFTSFGLLKL
Endotoxin	Less than 1 EU/μg of rHusCD40L as determined by LAL method.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably des centigradecated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw centigrade centigradeles.
Reconstitution	Reconstitute in 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 ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.
Quality Statement	Our GMP proteins are produced according to relevant sections of the following documents: WHO TRS, No. 822, 1992 Annex 1, Good Manufacturing Practices for Biological Products; USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and USP Chapter 92, Growth Factors and Cytokines Used in Cell Therapy Manufacturing.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

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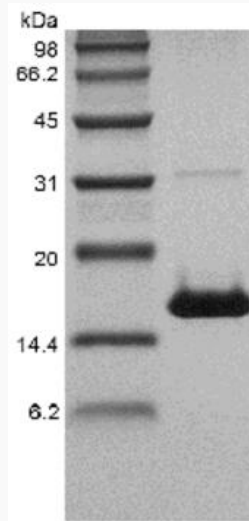
GENE INFORMATION


Gene Name	CD40LG CD40 ligand [Homo sapiens]
Official Symbol	CD40LG
Synonyms	CD40LG; CD40 ligand; HIGM1, IMD3, TNFSF5, tumor necrosis factor (ligand) superfamily, member 5 (hyper IgM syndrome); CD40 antigen ligand; CD40L; CD154; gp39; hCD40L; hyper IgM syndrome; T B cell activating molecule; TNF related activation protein; TRAP; tumor necrosis factor (ligand) superfamily member 5; CD40-L; T-cell antigen Gp39; T-B cell-activating molecule; TNF-related activation protein; IGM; IMD3; HIGM1; T-BAM; TNFSF5;
Gene ID	959
mRNA Refseq	NM_000074
Protein Refseq	NP_000065
MIM	300386
UniProt ID	P29965

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