

Active Recombinant Human CD40LG, FLAG-tagged

Cat. No. CD40LG-193H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD40LG(aa 116-261) fused with mouse ACRP30headless (aa 18-111) and a FLAG-tag at N-terminal was expressed in CHO cells.
Species	Human
Source	CHO
ProteinLength	116-261 a.a.
Description	It is a protein that is primarily expressed on activated T cells and is a member of the TNF superfamily of molecules. It binds to CD40 on antigen-presenting cells (APC), which leads to many effects depending on the target cell type. In total CD40L has three binding partners: CD40, $\alpha 5\beta 1$ integrin and $\alpha IIb\beta 3$. CD154 acts as a costimulatory molecule and is particularly important on a subset of T cells called T follicular helper cells (TFH cells). On TFH cells, CD154 promotes B cell maturation and function by engaging CD40 on the B cell surface and therefore facilitating cell-cell communication. A defect in this gene results in an inability to undergo immunoglobulin class switching and is associated with hyper IgM syndrome. Absence of CD154 also stops the formation of germinal centers and therefore prohibiting antibody affinity maturation, an important process in the adaptive immune system.
Form	Lyophilized. Contains PBS
Bio-activity	Induces B cells activation (as demonstrated by dose-dependent upregulation of CD86) (ED50: <1ng/ml).

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Molecular Mass	~35-40kDa (SDS-PAGE)
Endotoxin	<0.01EU/μg purified protein (LAL test; Lonza).
Purity	≥95% (SDS-PAGE)
Notes	After reconstitution, prepare aliquots and store at -20 centigrade. Avoid freeze/thaw cycles. PBS containing at least 0.1% BSA should be used for further dilutions.
Stability	Stable for at least 6 months after receipt when stored at -20 centigrade.
Storage	Short Term Storage +4 centigrade; Long Term Storage -20 centigrade.
Concentration	0.1mg/ml after reconstitution.
Reconstitution	Reconstitute with 100μl sterile water.

GENE INFORMATION

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

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Protein Refseq	NP_000065
MIM	300386
UniProt ID	P29965
Chromosome Location	Xq26
Pathway	Adaptive Immune System, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Asthma, conserved biosystem
Function	CD40 receptor binding; cytokine activity; tumor necrosis factor receptor binding

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