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CD40L/CD154/TRAP

Catalog # PVGS1012

Product Information

Primary Accession	P29965
Species	Human
Sequence	Met113-Leu261
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by RP-HPLC > 95% as analyzed by Anion-exchange FPLC
Endotoxin Level	
Biological Activity	Recombinant human CD40 Ligand (CD40L/CD154/TRAP) is fully biologically active when compared to standard. The ED_{50} as determined by the dose-dependant stimulation of IL-12 & IL-8 induction by PMB (Peripheral Mononuclear) cells was found to be 5.0-10.0 ng/ml, corresponding to a Specific Activity of 1.0 x 10^5 IU/mg.
Expression System	E. coli
Theoretical Molecular Weight	16.3 kDa
Formulation	Lyophilized after extensive dialysis against 50 mM Tris-HCl, pH 8.0, 250 mM NaCl buffer.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile 18 MΩ-cm H_2O up to 100 □g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	959
Other Names	CD40 ligand, CD40-L, T-cell antigen Gp39, TNF-related activation protein, TRAP, Tumor necrosis factor ligand superfamily member 5, CD154, CD40 ligand, membrane form, CD40 ligand, soluble form, sCD40L, CD40LG, CD40L, TNFSF5, TRAP
Target Background	CD40 Ligand (CD40L/CD154/TRAP) is a membrane glycoprotein and differentiation antigen expressed on the surface of T-cells. The CD40 ligand stimulates B-cell proliferation and secretion of all immunoglobulin isotypes in the presence of cytokines. It also costimulates proliferation of activated T-cell and this is accompanied by the production of IFN-γ, TNF-α, and IL2. CD40

ligand has been shown to induce cytokine production and tumoricidal activity in peripheral blood monocytes.

Protein Information

Name	CD40LG
Synonyms	CD40L, TNFSF5, TRAP
Function	Cytokine that acts as a ligand to CD40/TNFRSF5 (PubMed: 1280226, PubMed:31331973). Costimulates T-cell proliferation and cytokine production (PubMed:8617933). Its cross-linking on T-cells generates a costimulatory signal which enhances the production of IL4 and IL10 in conjunction with the TCR/CD3 ligation and CD28 costimulation (PubMed:8617933). Induces the activation of NF-kappa-B (PubMed:15067037, PubMed:31331973). Induces the activation of kinases MAPK8 and PAK2 in T-cells (PubMed:15067037). Induces tyrosine phosphorylation of isoform 3 of CD28 (PubMed:15067037). Mediates B-cell proliferation in the absence of co-stimulus as well as IgE production in the presence of IL4 (By similarity). Involved in immunoglobulin class switching (By similarity).
Cellular Location	Cell membrane; Single-pass type II membrane protein. Cell surface
Tissue Location	Specifically expressed on activated CD4+ T- lymphocytes

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.