

DATASHEET
Version 20181206**CD40L/CD154/TRAP, Human****Cat. No.:** Z02022-50**Size:** 50.0 ug**Synonyms:** CD40 Ligand, CD154, TRAP, TNFSF5, gp39**Description:**

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.

Recombinant Human CD40 Ligand (CD40L/CD154/TRAP) produced in *E. coli* is a non-glycosylated, polypeptide chain containing 149 amino acids and having a molecular mass of 16,308 Da.

Source: *E. coli***Species:** Human

Biological Activity: Recombinant human CD40 Ligand (CD40L/CD154/TRAP) is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of IL-12 & IL-8 induction by PMB (Peripheral Mononuclear) cells was found to be 5-10 ng/ml, corresponding to a Specific Activity of 1.0×10^5 IU/mg.

Molecular Weight: 16,308 Da

Sequence Analysis: The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Lys-Gly-Asp.

Formulation: The protein was lyophilized after extensive dialysis against 50mM Tris-HCl, pH8.0, 250mM NaCl buffer.

Reconstitution: It is recommended to reconstitute the lyophilized recombinant human CD40 Ligand (CD40L/CD154/TRAP) in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Purity: Greater than 95.0% as determined by:

1. Analysis by RP-HPLC.
2. Anion-exchange FPLC.
3. Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Endotoxin Level: Less than 0.1 ng/ μ g (1 EU/ μ g) of recombinant human CD40 Ligand (CD40L) as determined by LAL test.

Storage: Lyophilized recombinant human CD40 Ligand (CD40L/CD154/TRAP) although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CD40L should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA).