



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

## Recombinant Mouse soluble CD40 Ligand/TRAP

**Catalog No.**  
228-10197

**Source**  
*Escherichia Coli.*

### **Synonyms**

CD40-L, Tumor necrosis factor ligand superfamily member 5, TNF-related activation protein, TRAP, T cell antigen Gp39, CD154 antigen, sCD40, IGM, IMD3, HIGM1, T-BAM, TNFSF5, hCD40L.

### **Introduction:**

CD40L or CD154 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. CD40 ligand has been shown to induce cytokine production and tumoricidal activity in peripheral blood monocytes. It also costimulates proliferation of activated T-cells and this is accompanied by the production of IFN-gamma, TNF-alpha, and IL2 .

### **Description:**

sCD40 Mouse Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 149 amino acids and having a molecular mass of 16409 Dalton.

The sCD40 is purified by proprietary chromatographic techniques.

### **Formulation:**

Lyophilized from a sterile concentrated solution (1mg/ml) with 10mM Sodium Phosphate pH=7.5.

### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Solubility:**

It is recommended to reconstitute the lyophilized sCD40 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

### **Purity:**

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAG.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### ***Stability:***

Lyophilized sCD40 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CD154 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).

**Please prevent freeze-thaw cycles.**

### ***Amino acid sequence***

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

### ***Biological Activity***

The ED50 as determined by its ability to induce MIP-1 alpha & TNF-alpha from mouse splenocytes was found to be 0.1 µg/ml.

### ***Protein content***

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 1.1 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of sCD40 as a Reference Standard.

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