
Human CD154 (CD40 Ligand) Recombinant Protein


Catalog Number: 14-8502

Also Known As: CD40L, CD40-L

RUO: For Research Use Only

Product Information

Contents: Human CD154 (CD40 Ligand) Recombinant Protein

 Catalog Number: 14-8502

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment

Source: E. coli

Purity: Greater than 98%, as determined by SDS-PAGE

Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: The ED₅₀ measured in a T-47D cell line proliferation assay is typically 40 ng/ml, corresponding to a specific activity of approximately 2.5 x10⁴ Units/mg.

Formulation: Sterile liquid: phosphate buffered saline, pH 7.2, 1.0% BSA. 0.22 µm filtered.



Temperature Limitation: Store at less than or equal to -70°C.



Batch Code: Refer to Vial



Use By: Refer to Vial

Description

CD40 ligand, (CD40L, also known as CD154, TRAP or gp39) is a membrane glycoprotein expressed on activated CD4+ T-cells, NK cells, mast cells, basophils and eosinophils. The CD40-CD40L interaction stimulates B cell immune response which includes cell surface antigen expression, cell cycle activation, Ig isotype switching, Ig secretion and memory generation. The CD40-CD40L interaction also plays important roles in monocyte and dendritic cell activation, T-cell co-stimulation and cytokine production. It has been reported that the CD40-CD40L interaction is involved in the pathogenesis of amyloid pathology in Alzheimer disease.

Recombinant Human CD40L produced in E.Coli is a non-glycosylated, polypeptide containing 149 amino acids and having a molecular mass of 16 kDa.

Applications Reported

Recombinant human CD40L is biologically active and can promote proliferation of T-47D cells in culture.

Applications Tested

This reagent has been tested in bioassays using the cell line T-47D. The ED₅₀ measured in a T-47D cell proliferation assay is typically 40 ng/ml, corresponding to a specific activity of approximately 2.5 x10⁴ Units/mg.

References

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Straw, A. D. MacDonald, A. S. Denkers, E. Y. Pearce, E. J. CD154 plays a central role in regulating dendritic cell activation during infections that induce Th1 or Th2 responses. *J. Immun.* 2003; 170: 727-734.

Allen, R. C. Armitage, R. J. Conley, M. E. Rosenblatt, H. Jenkins, N. A. Copeland, N. G. Bedell, M. A. Edelhoff, S. Distech, C. M. Simoneaux, D. K. Fanslow, W. C. Belmont, J. Spriggs, M. K. CD40 ligand gene defects responsible for X-linked hyper-IgM syndrome. *Science* 1993; 259: 990-993.

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