

CD40L, soluble CD40 Ligand/CD154/TRAP TNF-related Activation Protein human, recombinant, *E. coli*

Cat. No.	Amount
PR-680	50 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Lyophilized with 10 mM sodium phosphate pH 7.5.

Solubility

It is recommended to reconstitute the lyophilized CD40L in sterile bidest H₂O not less than 100 µg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Activity

ED₅₀: 5-10 ng/ml, determined by the dose-dependent stimulation of IL-12 and IL-8 induction by PBM (Peripheral Mononuclear) cells.

Amino acid sequence

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

Molecular Weight

16.3 kDa

Purity

≥ 95% by SDS-PAGE and RP-HPLC

Description

Recombinant Human CD40L produced in *E. coli* is a non-glycosylated polypeptide chain containing 149 amino acids and having a molecular mass of 16.3 kDa.

CD40L or CD154 is a membrane glycoprotein and differentiation antigen expressed on the surface of T-cells. CD40L stimulates B-cell proliferation and secretion of all immunoglobulin isotypes in the presence of cytokines. CD40L 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-γ, TNF-α, and IL-2.

Recombinant CD40L is purified by proprietary chromatographic techniques.

Selected References:

- Cognasse *et al.* (2005) Differential downstream effects of CD40 ligation mediated by membrane or soluble CD40L and agonistic Ab: a study on purified human B cells. *Int. J. Immunopathol. Pharmacol.* **18**:65.
- Guiducci *et al.* (2005) CD40/CD40L interaction regulates CD4(+)CD25(+) T reg homeostasis through dendritic cell-produced IL-2. *Eur. J. Immunol.* **35**:557.
- Novo *et al.* (2005) Soluble CD40L and Cardiovascular Risk in Asymptomatic Low-Grade Carotid Stenosis. *Stroke.* **36**:673.
- Rayat *et al.* (2005) Indefinite Survival of Neonatal Porcine Islet Xenografts by Simultaneous Targeting of LFA-1 and CD154 or CD45RB. *Diabetes.* **54**:443.
- Farahani *et al.* (2005) Autocrine VEGF mediates the antiapoptotic effect of CD154 on CLL cells. *Leukemia.* **19**:524.