

Recombinant human CD40L (*E. coli*)

E. coli expressed human CD40L (with HSA)

Cat. code: rcyec-hcd40l, rcyec-hcd40l-5

invivogen.com/human-cd40l

For research use only

Version 25C26-AK

PRODUCT INFORMATION

Contents

Recombinant human CD40L (*E. coli*) is provided as a lyophilized powder and is available in two quantities:

- rcyec-hcd40l: 10 µg
- rcyec-hcd40l-5: 50 µg (5 x 10 µg)

Note: This product is sterile filtered prior to lyophilization.

- 1.5 ml endotoxin-free water for rcyec-hcd40l and rcyec-hcd40l-5

Storage and stability

- Recombinant human CD40L (*E. coli*) is shipped at room temperature. Upon receipt, it should be immediately stored at -20 °C.
- Upon resuspension, prepare aliquots of recombinant human CD40L and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months.

Note: Avoid repeated freeze-thaw cycles.

Quality control

- Purity: ≥ 95% (SDS-PAGE)
- Endotoxin level: ≤ 1 EU/µg (LAL assay)
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.
- The biological activity of CD40L is confirmed using HEK-Blue™ CD40L cells.

Characteristics

- Alternate name: CD154, T-cell antigen Gp39, TNF-related activation protein (TRAP), Tumor necrosis factor ligand superfamily member 5
- Source: Bacterial; *Escherichia coli* (*E. coli*)
- Carrier: HSA (human serum albumin)
- Tag: Tag-free
- Accession number: P29965
- Molecular mass: ~ 16 kDa (SDS-PAGE)
- Formulation: Recombinant human CD40L was lyophilized from a 0.2 µm filtered phosphate buffer saline (pH 7.4), 5% saccharose, 2% HSA.
- Solubility: 100 µg/ml in water

TESTED APPLICATIONS

- Cellular assays

PRODUCT DESCRIPTION

CD40 Ligand (CD40L) is a protein that is primarily expressed on activated T cells and is a member of the tumor necrosis factor superfamily. Of note, CD40L, together with its receptor CD40, plays a pivotal role in cellular and humoral immunity. Recombinant human CD40L is a high-quality and biologically active cytokine, validated using proprietary CD40L reporter cells. This member of the TNF superfamily is produced in *E. coli* and thoroughly purified to remove endotoxins.

InvivoGen's recombinant human CD40L (*E. coli*) is provided tag-free, with HSA carrier. It is produced in *E. coli* and thoroughly purified to remove endotoxins. Recombinant human CD40L (*E. coli*) can be used together with HEK-Blue™ CD40L cells for the screening of inhibitory molecules, such as Frexalimab, a monoclonal antibody targeting CD40L.

1. Karnell J.L. *et al.*, 2019. Targeting the CD40-CD40L pathway in autoimmune diseases: Humoral immunity and beyond. *Adv Drug Deliv Rev.* 141:92-103.
2. Laman J.D. *et al.*, 2017. Functions of CD40 and Its Ligand, gp39 (CD40L). *Crit Rev Immunol.* 37(2-6):371-420.
3. Elgueta R. *et al.*, 2009. Molecular mechanism and function of CD40/CD40L engagement in the immune system. *Immunol. Rev.* 229, 152-172.

METHODS

Preparation of stock solution (100 µg/ml):

1. Add 100 µl of endotoxin-free water (provided) to 10 µg of recombinant human CD40L.
2. Mix gently by pipetting until completely resuspended.
3. Use immediately or prepare aliquots and store at -20 °C or -80 °C. Avoid freeze-thaw cycles.
4. Further dilutions can be prepared in the appropriate aqueous buffer, such as cell culture medium containing serum.

RELATED PRODUCTS

Product	Cat. Code
HEK-Blue™ CD40L Cells	hkb-cd40
Recombinant human CD40L (CHO)	rcyc-hcd40l
Anti-hIL-CD40L-hlgG1 (Frexalimab)	h40l-mab1
Anti-hCD40L-mlgG2a	mab10-h40l-03

TECHNICAL SUPPORT

InvivoGen USA (Toll-Free): 888-457-5873

InvivoGen USA (International): +1 (858) 457-5873

InvivoGen Europe: +33 (0) 5-62-71-69-39

InvivoGen Asia: +852 3622-3480

E-mail: info@invivogen.com