

# Anti-Human CD40 Ligand

## Polyclonal Antibody

### Product Information

**Product No.:** C845

**RRID:** AB\_2829870

**Storage:** -20°C

### Product Description

**Specificity:**

Rabbit Anti-Human Soluble CD40 Ligand (sCD40 Ligand) recognizes Human sCD40 Ligand. This antigen affinity purified polyclonal antibody was purified using a proprietary chromatographic technique that includes covalently immobilizing the antigen proteins or peptides to agarose-based beads. This purification method enhances specificity, reduces nonspecific binding of extraneous IgG and provides you with the most reliable reagent available for your early discovery research.

**Antigen Distribution:**

CD154 is expressed on activated CD4+ T cells

**Background:**

CD40 is a 48 kD type I transmembrane glycoprotein that is a member of the TNFR superfamily. CD40, in association with its ligand CD154 (CD40L) - a 39 kD protein, acts as a costimulatory molecule for the activation of B cells, dendritic cells, monocytes, and other antigen presenting cells. CD40 is involved in Ig isotype switching and dendritic cell maturation, as well as the activation, differentiation and proliferation of B cells. CD40 interacts with TNFR2 and is involved in the regulation of signal transduction. CD40 is a potential target for cancer immunotherapy. Blocking the interaction of CD40 with its ligand (CD154) is the sought-after therapeutic objective for preventing and/or improving both autoimmune diseases and transplant rejection. Studies have shown that monoclonal antibodies that block CD154 in human clinical trials resulted in unanticipated vascular complications. Hence, an interest in the therapeutic potential for antagonist mAbs specific for human CD40 is emerging. Antibodies of particular therapeutic interest are those that do not inhibit CD40 signaling via physical competition with CD154. Additionally, the interaction of CD40 and its ligand (CD154) is found to be essential for amyloid-beta-induced microglial activation, thus plays a significant part in Alzheimer disease pathogenesis.

**Format:**

Antigen Affinity Purified

**Immunogen:**

E. coli-Derived Recombinant Human CD40 Ligand Extracellular Domain

### Formulation

This antigen affinity purified polyclonal antibody has been 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 containing 5.0% w/v trehalose with no calcium, magnesium, or preservatives present.

### Endotoxin

<0.1 EU/µg as determined by the LAL method

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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## Storage and Stability

The lyophilized antigen affinity purified polyclonal antibody can be stored desiccated at -20°C to -70°C for twelve months from date of receipt. The reconstituted antibody can be stored for at least four weeks at 2-8°C. For long-term storage of the reconstituted antibody, aseptically aliquot into working volumes and store at -20°C to -70°C in a manual defrost freezer. No detectable loss of activity was observed after six months.

**Avoid Repeated Freeze Thaw Cycles**

## Applications

**Applications and Recommended Usage (Quality Tested By Leinco):**

**Flow Cytometry:** It is recommended to use the indirect method for signal enhancement when enumerating cells expressing sCD40 Ligand. A suggested method would be to stain cells expressing sCD40 Ligand with 0.25 µg per 1-2.5 x 10<sup>6</sup> cells in a total staining volume of ≤200 µl followed by PN:G641.

**Western Blotting:** To detect Human sCD40 Ligand this polyclonal antibody can be used at a concentration of 0.1-0.2 µg/ml. This polyclonal antibody should be used in conjunction with compatible second-step reagents such as PN:G505 and a chromogenic substrate such as PN:T343. The detection limit for Human sCD40 Ligand is 2 ng/lane under either reducing or non-reducing conditions. The sensitivity of detection may increase up to 50 fold when a chemiluminescent substrate is used.

**Other Applications Reported in Literature:**

**CyTOF-ready:** Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.

## Country of Origin

USA