

# Anti-CD40L (Ruplizumab), Human IgG1 Antibody

Catalog # ABV11788

Specification

## Anti-CD40L (Ruplizumab), Human IgG1 Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW FC <u>P29965</u> Human Recombinant Monoclonal Human IgG1, kappa 29274

### Anti-CD40L (Ruplizumab), Human IgG1 Antibody - Additional Information

Gene ID 959

Alias Symbol CD40LG Other Names CD40 ligand; tumour necrosis factor ligand superfamily member 5; TNFSF5; CD154; tumour necrosis factor related activation protein; TRAP

Appearance Colorless liquid

**Formulation** 200 μg affinity purified human antibody in phosphate-buffered saline (PBS) containing 0.02% Proclin 300

Reconstitution & Storage -20 °C

**Background Descriptions** 

**Precautions** Anti-CD40L (Ruplizumab), Human IgG1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Anti-CD40L (Ruplizumab), Human IgG1 Antibody - Protein Information

Name CD40LG

Synonyms CD40L, TNFSF5, TRAP

Function

Cytokine that acts as a ligand to CD40/TNFRSF5 (PubMed:<a href="http://www.uniprot.org/citations/1280226" target="\_blank">1280226</a>, PubMed:<a



href="http://www.uniprot.org/citations/31331973" target="\_blank">31331973</a>). Costimulates T-cell proliferation and cytokine production (PubMed:<a

href="http://www.uniprot.org/citations/8617933" target="\_blank">8617933</a>). Its cross-linking on T-cells generates a costimulatory signal which enhances the production of IL4 and IL10 in conjunction with the TCR/CD3 ligation and CD28 costimulation (PubMed:<a

href="http://www.uniprot.org/citations/8617933" target="\_blank">8617933</a>). Induces the activation of NF-kappa-B (PubMed:<a href="http://www.uniprot.org/citations/15067037" target="\_blank">15067037</a>, PubMed:<a href="http://www.uniprot.org/citations/31331973" target="\_blank">31331973</a>). Induces the activation of kinases MAPK8 and PAK2 in T-cells (PubMed:<a href="http://www.uniprot.org/citations/15067037" target="\_blank">15067037</a>). Induces the activation of kinases MAPK8 and PAK2 in T-cells (PubMed:<a href="http://www.uniprot.org/citations/15067037" target="\_blank">15067037</a>). Induces the activation of kinases MAPK8 and PAK2 in T-cells (PubMed:<a href="http://www.uniprot.org/citations/15067037" target="\_blank">15067037</a>). Induces tyrosine phosphorylation of isoform 3 of CD28 (PubMed:<a href="http://www.uniprot.org/citations/15067037" target="\_blank">15067037</a>). Mediates B-cell proliferation in the absence of co-stimulus as well as IgE production in the presence of IL4 (By similarity). Involved in immunoglobulin class switching (By similarity).

**Cellular Location** Cell membrane; Single-pass type II membrane protein. Cell surface

**Tissue Location** Specifically expressed on activated CD4+ T- lymphocytes

# Anti-CD40L (Ruplizumab), Human IgG1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-CD40L (Ruplizumab), Human IgG1 Antibody - Images

### Anti-CD40L (Ruplizumab), Human IgG1 Antibody - Background

Cytokine that binds to CD40/TNFRSF5. Costimulates T-cell proliferation and cytokine production. Its cross-linking on T-cells generates a costimulatory signal which enhances the production of IL4 and IL10 in conjunction with the TCR/CD3 ligation and CD28 costimulation. Induces the activation of NF-kappa-B and kinases MAPK8 and PAK2 in T-cells. Induces tyrosine phosphorylation of isoform 3 of CD28. Mediates B-cell proliferation in the absence of co-stimulus as well as IgE production in the presence of IL4. Involved in immunoglobulin class switching. The antibody binds specifically to CD40L, a surface receptor expressed on activated T cells which acts as a costimulatory molecule to trigger immune responses. The antibody neutralizes CD40L function, as it blocks the interaction between CD40 and CD40L. When injected into cynomolgus monkeys, the antibody was found to have a T1/2 of 531  $\pm$  155 hours.