

Anti-hCD40L-IgG

Neutralizing monoclonal antibody against human CD40L

Catalog code: mabg-h40l-3

<https://www.invivogen.com/anti-hcd40l-igg>

For research use only, not for diagnostic or therapeutic use

Version 22K15-MM

PRODUCT INFORMATION

Contents

• 3 x 100 µg of purified anti-hCD40L-IgG antibody, provided azide-free and lyophilized

Specificity: Natural and recombinant human CD40 Ligand (hCD40L)

Immunogen: Human CD40L protein expressed in Swiss mice following DNA immunization

Source: Hybridoma cells

Clone: 13H5

Isotype: Mouse IgG2b

Light chain type: Kappa

Clonality: Monoclonal

Purification: By affinity chromatography

Formulation: 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose, and stabilizing agents

Antibody resuspension

Add 1 ml of sterile water to obtain a concentration of 0.1 mg/ml.

Storage and stability

- Product is shipped at room temperature. Upon receipt, store at -20°C.

- Reconstituted antibody is stable for 1 month when stored at 4 °C and for 1 year when stored at -20 °C. Avoid repeated freeze-thaw cycles.

Quality control

- This product has been validated for neutralization.

- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

BACKGROUND

CD40 ligand (CD40L) is a member of the tumor necrosis factor (TNF) family of cell surface interaction molecules. It is mainly expressed in CD4⁺-T cells and interacts with CD40 on antigen-presenting cells to regulate both humoral and cellular immune responses. CD40L-CD40 interactions are thought to play an important role in the pathogenesis of various diseases, including AIDS, Alzheimer's disease, diabetes, and rheumatoid arthritis^{1,2}.

1. Seijkens T. *et al.*, 2013. CD40-CD40L: Linking pancreatic, adipose tissue and vascular inflammation in type 2 diabetes and its complications. *Diabetes and Vascular Disease Research*. 10:115-22. 2. Daoussi D. *et al.*, 2004. Targeting CD40L: a promising therapeutic approach. *Clin Diagn Lab Immunol*. 11(4):635-41.

DESCRIPTION

Anti-hCD40L-IgG is a monoclonal antibody specific for human CD40 ligand (hCD40L). This antibody has been selected for its ability to efficiently neutralize the biological activity of hCD40L. Anti-hCD40L-IgG has been produced in hybridomas and purified by affinity chromatography.

APPLICATIONS

Anti-hCD40L-IgG is a neutralizing antibody, it blocks hCD40L-induced cellular activation. Other applications have not been tested.

Neutralization

The exact concentration of antibody required to neutralize hCD40L activity is dependent on the cell type and growth conditions. InvivoGen has determined the neutralization dose for this antibody using recombinant hCD40L and HEK-Blue™ CD40L cells (HEK239 cells expressing hCD40 and an NF-κB-inducible secreted embryonic alkaline phosphatase (SEAP) reporter gene. For more information, visit www.invivogen.com/hek-blue-cd40l.

Procedure for neutralization using HEK-Blue™ hCD40L cells

1. Add 20 µl of Anti-hCD40L-IgG or control antibody (1 ng/ml-1 µg/ml final concentration) per well of a 96-well plate.

Note: We recommend using Mouse Control IgG2b (which targets E. coli β-galactosidase) as a negative control antibody.

2. Add 20 µl recombinant hCD40L (30-100 ng/ml final concentration).

3. Incubate for 30 minutes at 37°C in a 5% CO₂ incubator.

4. Add 160 µl of HEK-Blue™ CD40L cell suspension (~50,000 cells) per well.

5. Incubate the plate at 37°C in a 5% CO₂ incubator for 18-24 h.

6. Monitor SEAP production using a SEAP detection assay such as QUANTI-Blue™ Solution.

RELATED PRODUCTS

Product	Description	Cat.Code
HEK-Blue™ CD40L Cells	CD40L reporter cells	hkb-cd40
Mouse Control IgG2b	Isotype control	mabg2b-ctrlm
QUANTI-Blue™ Solution	SEAP detection reagent	rep-qbs
Recombinant hCD40L	Recombinant cytokine	rcyec-hcd40l

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