

Product Information

Recombinant Human Anti-Human CD40LG Monoclonal Antibody

Cat. No.: **HOM-19249**

This product is for research use only and is not intended for diagnostic use.

Product Overview

Recombinant humanized antibody expressed in CHO binding to human CD40LG.

Antigen Description

CD154, also called CD40 ligand or CD40L, is a protein that is primarily expressed on activated T cells and is a member of the TNF superfamily of molecules. It binds to CD40 on antigen-presenting cells (APC), which leads to many effects depending on the target cell type. In total CD40L has three binding partners: CD40, $\alpha 5 \beta 1$ integrin and $\alpha 1 \text{Ib} \beta 3$. CD154 acts as a costimulatory molecule and is particularly important on a subset of T cells called T follicular helper cells (TFH cells). On TFH cells, CD154 promotes B cell maturation and function by engaging CD40 on the B cell surface and therefore facilitating cell-cell communication. A defect in this gene results in an inability to undergo immunoglobulin class switching and is associated with hyper IgM syndrome. Absence of CD154 also stops the formation of germinal centers and therefore prohibiting antibody affinity maturation, an important process in the adaptive immune system.

Target

CD40LG

Species Reactivity

Human

Type

Human IgG

Expression Host

CHO

Clone

Monoclonal

Purity

>95.0% as determined by analysis by RP-HPLC & analysis by SDS-PAGE.

Applications

ELISA, WB, IHC, FCM, IP, IF. Optimal dilutions/concentrations should be determined by the end user.

Molecular Weight

145.41 kDa

Stability

Samples are stable for up to twelve months from date of receipt at -20°C and are stable for six months at 4 °C.

Storage

Store it under sterile conditions at -20 °C upon receiving. Recommend to pack the antibody into smaller quantities for optimal storage.

Ship

2-8°C, BLUE ICE

ANTIGEN GENE INFORMATION

Gene Name

[CD40LG CD40 ligand \[Homo sapiens \]](#)

Official Symbol

CD40LG

Synonyms

CD40LG; CD40 ligand; HIGM1, IMD3, TNFSF5, tumor necrosis factor (ligand) superfamily, member 5 (hyper IgM syndrome); CD40 antigen ligand; CD40L; CD154; gp39; hCD40L; hyper IgM syndrome; T B cell activating molecule; TNF related activation protein; TRAP; tumor necrosis factor (ligand) superfamily member 5; CD40-L; T-cell antigen Gp39; T-B cell-activating molecule; TNF-related activation protein; IGM; IMD3; HIGM1; T-BAM; TNFSF5;

Gene ID

[959](#)

mRNA Refseq

[NM_000074](#)

Protein Refseq

[NP_000065](#)

MIM

[300386](#)

UniProt ID

P29965

Chromosome Location

Xq26

Pathway

Adaptive Immune System, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Asthma, organism-specific biosystem; Asthma, conserved biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem;

Function

CD40 receptor binding; cytokine activity; tumor necrosis factor receptor binding;