

### 36-3609: Anti-CD40 Ligand / CD154 / TRAP1 (Activation Marker of T-Lymphocytes) Monoclonal Antibody (Clone: CD40LG/2761)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	CD40LG/2761
<b>Application :</b>	ELISA, FACS, IF, IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	CD40LG
<b>Gene ID :</b>	959
<b>Uniprot ID :</b>	P29965
<b>Alternative Name :</b>	CD154; gp39; hCD40L; HIGM1; IGM; IMD3; T B cell activating molecule; T BAM; T-cell antigen Gp39; TNF-related activation protein; TrAP; Tumor necrosis factor ligand superfamily member 5 (TNFSF5)
<b>Isotype :</b>	Mouse IgG2b, kappa
<b>Immunogen Information :</b>	Recombinant fragment (around aa 108-261) of human CD40LG protein (exact sequence is proprietary)

#### Description

CD40LG expression is mainly confined to the CD4-positive-T-cell subset. Its expression is induced shortly after T-cell activation and represents an early activation marker of T lymphocytes. CD40 is constitutively expressed mainly on B cells, macrophages, and dendritic cells. The CD40-CD40L pathway has been shown to play multiple functional roles in the healthy immune system. It enhances the antigen-specific T-cell response through the activation of dendritic cells and the induction of interleukin-12 production. For example, engagement of CD40 on endothelial cells by activated T cells expressing CD40L leads to upregulation of adhesion molecules such as ICAM-1, VCAM-1, and E-selectin. Activation of APC by CD40-CD40L interaction induces the production of inflammatory cytokines, chemokines, NO, and metalloproteinases. Interaction of CD4-positive CD40LG-positive T cells with CD40 on B cells leads to B-cell differentiation, proliferation, immunoglobulin (Ig) isotype switching, and formation of memory B cells.

#### Product Info

<b>Amount :</b>	20 µg / 100 µg
<b>Content :</b>	200 µg/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage condition :</b>	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

#### Application Note

ELISA (For coating, order antibody without BSA); Flow Cytometry (1-2ug/million cells); Immunofluorescence (1-2ug/ml); Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT), (Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes);

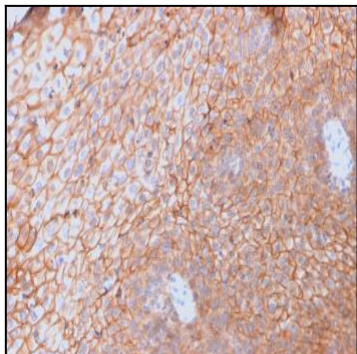


Fig. 1: Formalin-fixed, paraffin-embedded human Spleen stained with CD40L-Monospecific Mouse Monoclonal Antibody (CD40LG/2761).

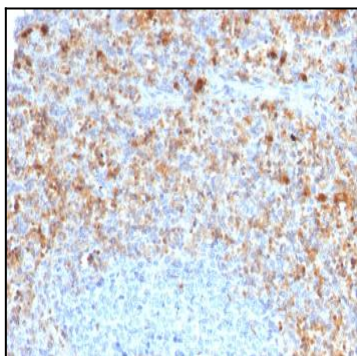


Fig. 2: Formalin-fixed, paraffin-embedded human Spleen stained with CD40L-Monospecific Mouse Monoclonal Antibody (CD40LG/2761)

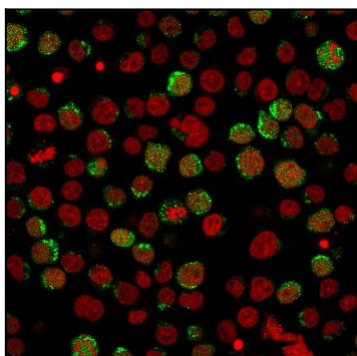


Fig. 3: Immunofluorescent staining of paraformaldehyde-fixed Jurkat cells using CD40L Mouse Monoclonal Antibody (CD40LG/2761) followed by goat anti-Mouse IgG conjugated to CF488 (green). Nuclei are stained with Reddot.

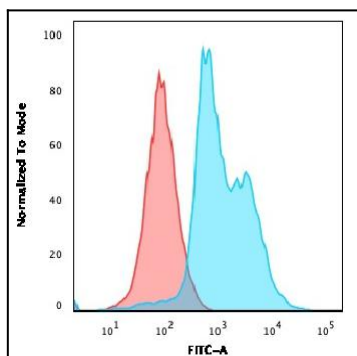


Fig. 4: Flow Cytometric Analysis of Jurkat cells using CD40L-Monospecific Mouse Monoclonal Antibody (CD40LG/2761) followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).

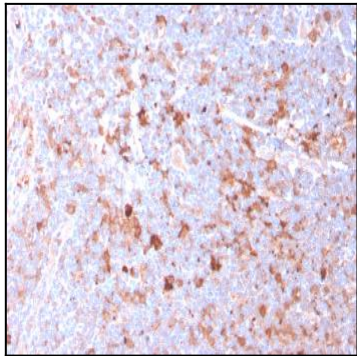


Fig. 5: Formalin-fixed, paraffin-embedded human Tonsil stained with CD40L-Monospecific Mouse Monoclonal Antibody (CD40LG/2761).

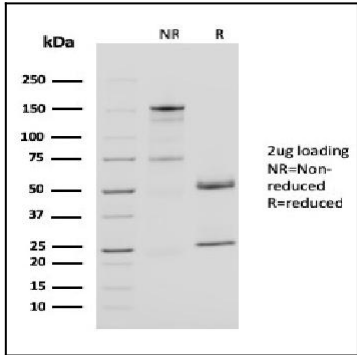


Fig. 6: SDS-PAGE Analysis Purified CD40L Mouse Monoclonal Antibody (CD40LG/2761). Confirmation of Purity and Integrity of Antibody.

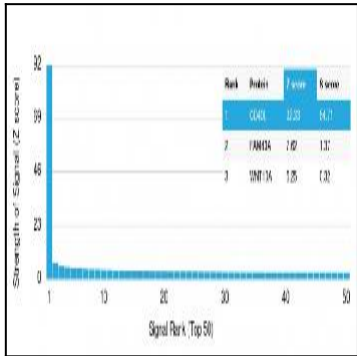


Fig. 7: Analysis of Protein Array containing more than 19,000 full-length human proteins using CD40-Ligand Mouse Monoclonal Antibody (CD40LG/2761) Z- and S-Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.