abcam

ab259254

Anti-TRAP/CD40L antibody [CD40LG/2761] - BSA and Azide free

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CD40LG aa 100 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P29965
Carrier free	Yes
Clone number	CD40LG/2761
Purification technique	Affinity purification Protein A/G
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from bioreactor concentrate.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-2 µg for 10^6 Cells
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	Perform antigen retrieval for 45 min at 95°C followed by cooling at room temperature for 20 minutes. Incubate with primary antibody for 30 minutes at room temperature.

Target data

See full target information CD40LG

Function	Cytokine that acts as a ligand to CD40/TNFRSF5 (PubMed:1280226, PubMed:31331973). Costimulates T-cell proliferation and cytokine production (PubMed:8617933). 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:8617933). Induces the activation of NF-kappa-B (PubMed:15067037, PubMed:31331973). Induces the activation of kinases MAPK8 and PAK2 in T-cells (PubMed:15067037). Induces tyrosine phosphorylation of isoform 3 of CD28 (PubMed:15067037). 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). CD40 ligand, soluble form. Acts as a ligand for integrins, specifically ITGA5:ITGB1 and ITGAV:ITGB3; both integrins and the CD40 receptor are required for activation of CD40-CD40LG signaling, which have cell-type dependent effects, such as B-cell activation, NF-kappa-B signaling and anti-apoptotic signaling.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

ab259254 is the carrier-free version of ab257319.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	TRAP/CD40L also known as CD154 or CD40 ligand is a type II transmembrane protein with a molecular mass of approximately 39 kDa. CD40L is mainly expressed on the surface of activated T cells. This protein binds to CD40 a significant receptor present on several immune cells including B cells macrophages and dendritic cells. The interaction with CD40 is essential for immune cell activation and development marking CD40L as an important player in adaptive immunity.
Biological function summary	The interaction between CD40L and CD40 triggers cell proliferation differentiation and apoptosis in immune cells. CD40L contributes to the formation of an immunological synapse encompassing its role in T helper cell function. Furthermore CD40L is implicated in the activation of B cells which are necessary for antibody class switching and memory cell generation. Its broad influence shows CD40L's involvement in immune system regulation and response.

Pathways	CD40L is integral to the CD40 signaling pathway which is involved in immune and inflammatory responses. CD40L activates the NF-kB and JNK signaling pathways by engaging with CD40 which then drives the transcription of genes related to immune response. This signaling cascade impacts several other proteins such as TRAF proteins which act as intermediaries in propagating the signal.
Associated diseases and disorders	CD40L has been linked to immune-related conditions including autoimmune disorders and inflammatory diseases. Elevated CD40L expression is observed in diseases such as systemic lupus erythematosus (SLE) and rheumatoid arthritis. In SLE CD40L interaction with CD40 on B cells is known to exacerbate disease severity by promoting autoantibody production. Exploring anti-CD40L therapeutic strategies can offer potential intervention in such diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

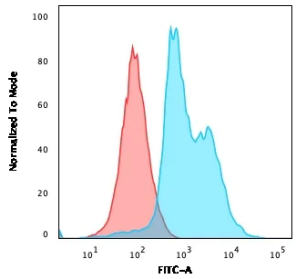
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

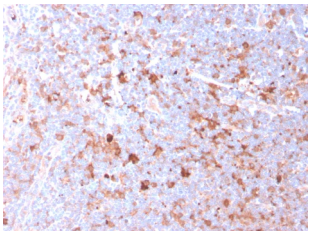
4 product images



Flow Cytometry - Anti-TRAP/CD40L antibody [CD40LG/2761] - BSA and Azide free (ab259254)

TRAP/CD40L Flow Cytometry staining using mouse Anti-TRAP/CD40L antibody

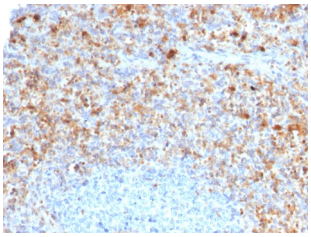
Flow Cytometric analysis of Jurkat cells staining TRAP/CD40L with ab257319 at 2µg/million cells, followed by a Goat anti-Mouse secondary antibody = blue. Isotype control = red.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab257319).



Immunohistochemistry - Anti-TRAP/CD40L antibody [CD40LG/2761] - BSA and Azide free (ab259254)

TRAP/CD40L Immunohistochemistry staining using mouse Anti-TRAP/CD40L antibody

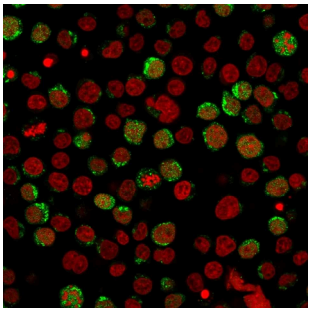
Immunohistochemical analysis of fomalin-fixed, paraffin-embedded human tonsil tissue staining TRAP/CD40L with ab257319 at 2µg/ml.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab257319).



Immunohistochemistry - Anti-TRAP/CD40L antibody [CD40LG/2761] - BSA and Azide free (ab259254)

TRAP/CD40L Immunohistochemistry staining using mouse Anti-TRAP/CD40L antibody

Immunohistochemical analysis of fomalin-fixed, paraffin-embedded human spleen tissue staining TRAP/CD40L with ab257319 at 2µg/ml.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab257319).



Immunocytochemistry - Anti-TRAP/CD40L antibody [CD40LG/2761] - BSA and Azide free (ab259254)

TRAP/CD40L Immunocytochemistry staining using mouse Anti-TRAP/CD40L antibody

Immunocytochemical/Immunofluorescent analysis of paraformaldehyde-fixed Jurkat cells staining TRAP/CD40L with ab257319 at 2µg/ml, followed by a goat anti-mouse conjugated to CF488. Nuclei are stained with Reddot.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab257319).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.