abcam

ab268268

Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human CD27. Database link P26842
Carrier free	Yes
Clone number	LPFS2/1611
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	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Protein Array

Tested

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

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

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-

Notes	-

IHC-P

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information CD27

Function

Costimulatory immune-checkpoint receptor expressed at the surface of T-cells, NK-cells and B-cells which binds to and is activated by its ligand CD70/CD27L expressed by B-cells (PubMed:28011863). The CD70-CD27 signaling pathway mediates antigen-specific T-cell activation and expansion which in turn provides immune surveillance of B-cells (PubMed:28011863). Mechanistically, CD70 ligation activates the TRAF2-PTPN6 axis that subsequently inhibits LCK phosphorylation to promote phenotypic and transcriptional adaptations of T-cell memory (PubMed:38354704). In addition, activation by CD70 on early progenitor cells provides a negative feedback signal to leukocyte differentiation during immune activation and thus modulates hematopoiesis (By similarity). Negatively regulates the function of Th2 lymphocytes in the adipose tissue (By similarity).

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

Supplementary info

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

Activity summary	CD27 also known as Tumor Necrosis Factor Receptor Superfamily Member 7 (TNFRSF7) is a protein chiefly involved in T cell activation and proliferation. It belongs to the TNF-receptor superfamily and weighs approximately 50 kDa. CD27 is expressed mainly on T lymphocytes and to a lesser extent on B cells and natural killer cells. Researchers often study CD27 and its ligand CD70 to understand immune responses. Tools such as anti-CD27 percp 7h21 monoclonal antibodies and APC-conjugated forms help detect this protein in various assays.
Biological function summary	One finds CD27 at the heart of cellular immune responses. It does not function alone; instead it typically forms part of a receptor-ligand complex with CD70 which influences T cell and B cell activities. This interaction promotes cell survival and plays a role in the activation of NF-kB and MAPK8/JNK signaling pathways which are essential for immune response regulation. These pathways ensure that the body's immune cells can efficiently respond to pathogens.
Pathways	CD27 actively integrates into the NF-kB and mTOR signaling pathways which are important for regulating immune and inflammatory responses. Through these pathways CD27 works closely with proteins like TRAF2 and TRAF3 which are adapter molecules that transmit signals from the receptor. These signaling pathways provide a framework for understanding how CD27 and associated proteins work together to control immune cell behavior facilitating coordinated immune defense mechanisms.
Associated diseases and disorders	CD27 has significant implications in autoimmune diseases and cancer. For example aberrant activation of CD27 may contribute to conditions like lymphoma and autoimmune diseases such as lupus. The CD70-CD27 signaling axis when dysregulated can lead to uncontrolled cell proliferation or apoptosis linking it to these pathologies. Understanding the interplay between CD27 and proteins like Bcl-2 which influences apoptosis helps pave the way for therapeutic strategies targeting these 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

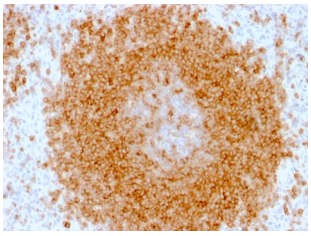
We do not recommend this combination. It is not covered by our product promise.

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.

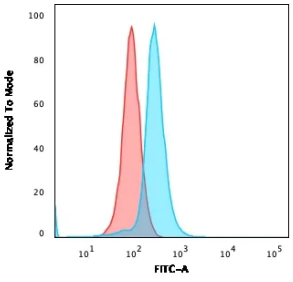
Full details and terms and conditions can be found here:
Terms & Conditions.

7 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

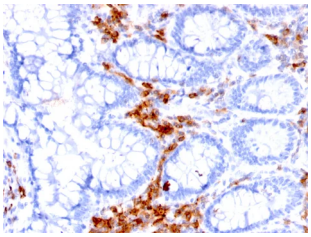
Formalin-fixed, paraffin-embedded human spleen tissue stained for CD27 using ab268144 at 2 µg/ml in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)



Flow Cytometry - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

CD27 Flow Cytometry staining using mouse Anti-CD27 antibody

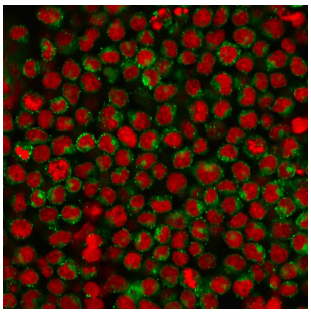
Flow cytometric analysis of Ramos (Human Burkitt's lymphoma cell line) cells labeling CD27 using ab268144 at 2 µg/million cells followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

CD27 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD27 antibody

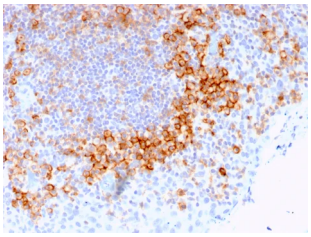
Formalin-fixed, paraffin-embedded human colon tissue stained for CD27 using ab268144 at 2 µg/ml in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)



Immunocytochemistry/ Immunofluorescence - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

CD27 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD27 antibody

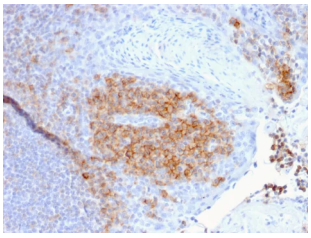
Immunocytochemistry/ Immunofluorescence staining of Ramos (Human Burkitt's lymphoma cell line) cells staind for CD27 using ab268144 at 2µg/ml followed by goat anti-Mouse IgG conjugated to CF488 (green). Nuclei are stained with Reddot.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

CD27 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD27 antibody

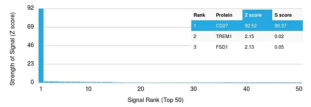
Formalin-fixed, paraffin-embedded human tonsil tissue stained for CD27 using ab268144 at 2 µg/ml in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

CD27 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD27 antibody

Formalin-fixed, paraffin-embedded human tonsil tissue stained for CD27 using ab268144 at 2 µg/ml in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)



Protein Array - Anti-CD27 antibody [LPFS2/1611] - BSA and Azide free (ab268268)

Protein Array containing more than 19,000 full-length human proteins using ab268144.
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 HuProtTM 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

HuProtTM 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and Sodium azide (ab268144)

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