abcam

ab265589

Anti-CD27 antibody [BLR083G]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline, 0.1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human CD27 aa 1-200. The exact immunogen used to generate this antibody is proprietary information. Database link P26842
Clone number	BLR083G
Purification technique	Affinity purification
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/500

Notes	-

ICC

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with ICC staining protocol.

IP

Tested

Species	Human
Dilution info	-
Notes	20 µl/mg lysate.

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1 µL for 10^6 Cells
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	+4°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

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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

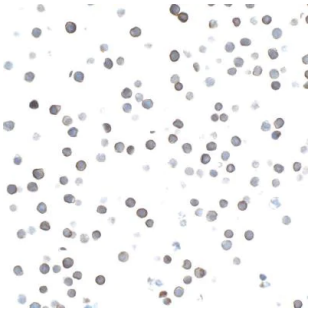
We do not recommend this combination. It is not covered by our product promise.

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.

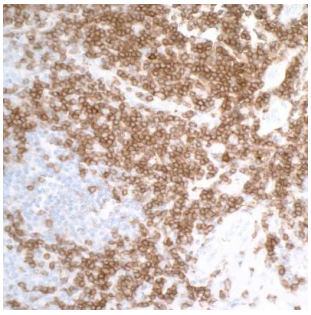
5 product images



Immunocytochemistry - Anti-CD27 antibody [BLR083G] (ab265589)

CD27 Immunocytochemistry staining using rabbit Anti-CD27 antibody

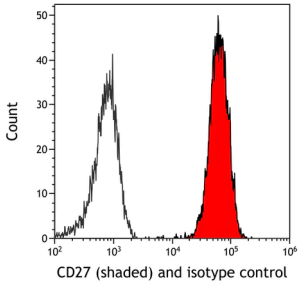
Immunocytochemical analysis of formalin-fixed, paraffin-embedded ramos cells labeling CD27 with ab265589 at 1/100 dilution. Detection: DAB.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD27 antibody [BLR083G] (ab265589)

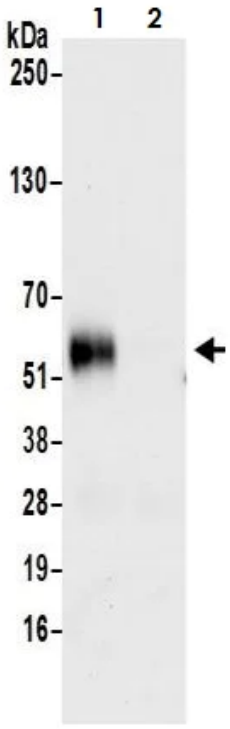
CD27 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD27 antibody

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue labeling CD27 with ab265589 at 1/100 dilution. Detection: DAB.



Flow Cytometry - Anti-CD27 antibody [BLR083G] (ab265589)

Flow cytometry overlay histogram of 4% formaldehyde fixed Ramos cells permeabilized with 90% methanol labeling human CD27 with ab265589 at 1 µl per 1 x 10^6 cells (shaded) compared with a Isotype control (unshaded). Secondary antibody details: DyLight® 488-conjugated goat anti-rabbit IgG (ab96883).



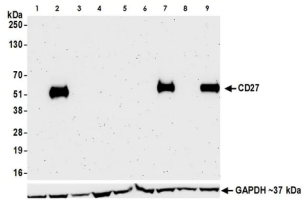
Immunoprecipitation - Anti-CD27 antibody [BLR083G] (ab265589)

CD27 was immunoprecipitated from 1mg of HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate with ab265589 at 20 µl/mg lysate. Western blot was performed from the immunoprecipitate using ab265589 at 1/1000 dilution.
Lane 1: ab265589 IP in HEK-293T whole cell lysate.
Lane 2: Control IgG.
Exposure time: 10 secs.

Cells prepared using NETN lysis buffer.

All lanes:
Immunoprecipitation - Anti-CD27 antibody [BLR083G] (ab265589)

Predicted band size: 29 kDa



Western blot - Anti-CD27 antibody [BLR083G] (ab265589)

Cells prepared using NETN lysis buffer.
All lanes:
Western blot - Anti-CD27 antibody [BLR083G] (ab265589) at 1/1000 dilution

Lane 1:
HeLa whole cell lysate at 50 µg

Lane 2:
Ramos whole cell lysate at 50 µg

Lane 3:
HEK-293T whole cell lysate at 50 µg

Lane 4:
Raji whole cell lysate at 50 µg

Lane 5:
Jurkat whole cell lysate at 50 µg

Lane 6:
U-2 OS whole cell lysate at 50 µg

Lane 7:
Daudi whole cell lysate at 50 µg

Lane 8:
MCF7 whole cell lysate at 50 µg

Lane 9:
CCRF-CEM whole cell lysate at 50 µg

Secondary

All lanes:
HRP conjugated goat anti-rabbit IgG

Predicted band size: 29 kDa

Exposure time: 3min

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