abcam

ab326504

PE Anti-CD27 antibody [LT27]

Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.098% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	LT27
Purification technique	Size-exclusion chromatography
Specificity	The antibody LT27 reacts with an extracellular epitope of CD27 (T14), a 50-55 kDa type I transmembrane glycoprotein (member of the TNF-receptor superfamily) expressed on medullary thymocytes, peripheral T lymphocytes, some B lymphocytes and NK cells.
Purification notes	Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	-
Notes	Flow cytometry: The reagent is designed for analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.

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	Ambient - Can Ship with Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze, Store in the dark

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.

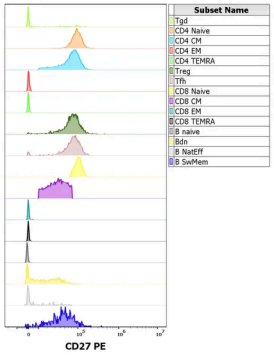
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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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4 product images

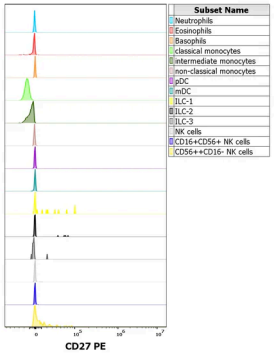


Flow Cytometry - PE Anti-CD27 antibody [LT27] (ab326504)

CD27 Flow Cytometry staining of Suspension of blood leukocytes isolated from buffy coats using mouse Anti-CD27 antibody

Expression profiling on peripheral blood subsets using Anti-human CD27 PE antibody (clone LT27). Adaptive panel

HCDM CDMaps standardized procedures (Kuzilkova D et al. Front Immunol. 2022;13:827898) were used for cell isolation and surface staining of blood leukocytes, with the modification of staining protocol using cytometry test tubes.
Suspension of blood leukocytes isolated from buffy coats (2 x 10^6 cells) was added to the mixture of anti-human CD27 PE antibody (clone LT27, 0.4 µg/ml in stained blood sample) and Monocyte Blocking Buffer, vortexed and incubated for 20 min. Next, optimized backbone antibody panel (HLDA Adaptive) was added to test tubes, vortexed and incubated for 20 min. The residual erythrocytes were lysed with 2 ml of 10× diluted EXCELLYSE Easy solution and incubated for 10 min. Finally, samples were centrifuged (670 g, 5 min.), supernatant removed and the cell pellet was resuspended in 200 µl of PBS for acquisition.

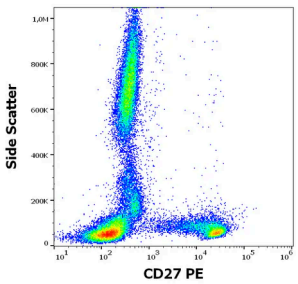


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CD27 Flow Cytometry staining of Suspension of blood leukocytes isolated from buffy coats using mouse Anti-CD27 antibody

Expression profiling on peripheral blood subsets using Anti-human CD27 PE antibody (clone LT27). Innate panel

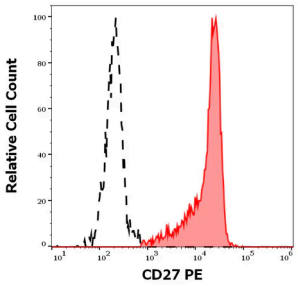
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Flow Cytometry - PE Anti-CD27 antibody [LT27] (ab326504)

CD27 Flow Cytometry staining of human peripheral whole blood using mouse Anti-CD27 antibody

Flow cytometry surface staining pattern of human peripheral whole blood stained using ab326504 (20 µl reagent / 100 µl of peripheral whole blood).



Flow Cytometry - PE Anti-CD27 antibody [LT27] (ab326504)

CD27 Flow Cytometry staining of human peripheral whole blood using mouse Anti-CD27 antibody

Separation of human CD27 positive lymphocytes (red-filled) from CD27 negative lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using ab326504 (20 µl reagent / 100 µl of peripheral whole blood).

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