abcam

ab130456

FITC Anti-CD99 antibody [3B2/TA8]

Anti-CD99 antibody [3B2/TA8] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [3B2/TA8] is a mouse monoclonal antibody cited in 8 publications.

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Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CD99 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P14209
Clone number	3B2/TA8
Purification technique	Size-exclusion chromatography

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	4 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

Target data

See full target information CD99

Function	Involved in T-cell adhesion processes and in spontaneous rosette formation with erythrocytes. Plays a role in a late step of leukocyte extravasation helping leukocytes to overcome the endothelial basement membrane. Acts at the same site as, but independently of, PECAM1. Involved in T-cell adhesion processes (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

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

Activity summary	CD99 also known as MIC2 or HO36 is a transmembrane protein of approximately 32-35 kDa. Expressed mainly on the surface of human cells CD99 plays a role in several physiological processes. It is prominently found on T cells B cells granulocytes and some capillary endothelial cells. The protein interacts with homophilic binding partners and influences various cellular functions depending on its location and cellular context. Immunohistochemistry for CD99 (CD99 IHC) is commonly used in research and diagnostic settings to study its involvement and presence in tissues.
Biological function summary	CD99 functions as a modulator in cell adhesion and migration. It facilitates the separation of leukocytes from the endothelium during transendothelial migration impacting the immune response and inflammation. CD99 is not part of a complex itself but interacts with extracellular matrix (ECM) components to perform its role. It contributes to the regulation of cell death pathways showcasing its versatility in maintaining cellular homeostasis.
Pathways	CD99 primarily participates in the regulation of T-cell adhesion and transmigration pathways. It supports the E-selectin and integrins pathway which is important for T-cell migration to sites of inflammation. CD99 works in conjunction with proteins like ICAM-1 and VCAM-1 assisting these proteins in facilitating immune cell movement and interactions. Its involvement in these pathways highlights its significance in immune surveillance and response modulation.

Associated diseases and disorders	CD99 shows a notable connection with Ewing sarcoma and T-cell acute lymphoblastic leukemia (T-ALL). It is highly expressed in Ewing sarcoma a malignant bone tumor and can aid in diagnostic identification alongside other markers such as HOXA9. Furthermore its expression profiles in T-ALL patients suggest a potential role in the progression or maintenance of the disease. CD99's interactions with these malignancies make it a potential target in therapeutic research exploring pathways and molecules that might modulate its expression or function.

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

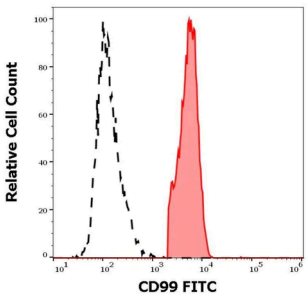
We do not recommend this combination. It is not covered by our product promise.

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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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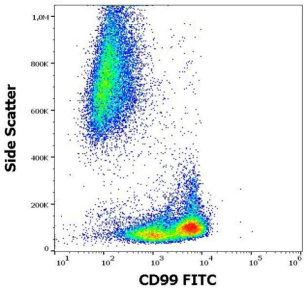
2 product images



Flow Cytometry - FITC Anti-CD99 antibody [3B2/TA8] (ab130456)

CD99 Flow Cytometry staining using mouse Anti-CD99 antibody

Flow cytometry analysis (surface staining) of human peripheral whole blood labeling CD99 with ab130456 (4 µL reagent/100 µL of peripheral whole blood). Histogram showing separation of human CD99 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed).



Flow Cytometry - FITC Anti-CD99 antibody [3B2/TA8] (ab130456)

CD99 Flow Cytometry staining using mouse Anti-CD99 antibody

Flow cytometry surface staining pattern of human peripheral whole blood labeling CD99 with ab130456 (4 µL reagent/100 µL of peripheral whole blood).

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