abcam

ab75858

Anti-CD99 antibody [EPR3097Y]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR3097Y
Purification technique	Affinity purification Protein A
Concentration	1.049 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/1000 - 1/2000
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

IP

Tested

Species	Human
Dilution info	1/20
Notes	For unpurified use at 1/100

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

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	Conditional Ambient
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	Stable for 12 months at -20°C

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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

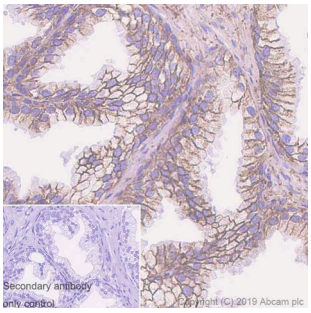
We do not recommend this combination. It is not covered by our product promise.

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.

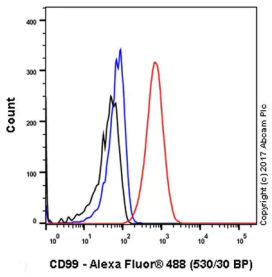
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD99 antibody [EPR3097Y] (ab75858)

CD99 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD99 antibody

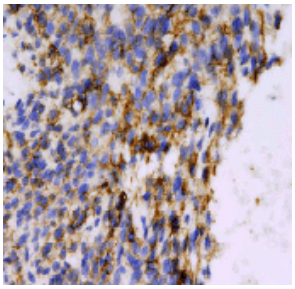
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostatic hyperplasia tissue sections labeling CD99 with Purified ab75858 at 1:1000 dilution (0.14 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-CD99 antibody [EPR3097Y] (ab75858)

CD99 Flow Cytometry (Intracellular) staining using rabbit Anti-CD99 antibody

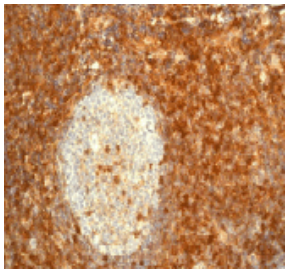
Intracellular Flow Cytometry analysis of Jurkat (Human acute T cell leukemia) labeling CD99with purified ab75858at 1/200 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (ab172730) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD99 antibody [EPR3097Y] (ab75858)

CD99 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD99 antibody

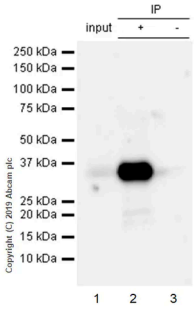
ab75858 at 1/1000 dilution staining CD99 in human Ewing's sarcoma by Immunohistochemistry, Paraffin-embedded tissue.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD99 antibody [EPR3097Y] (ab75858)

CD99 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD99 antibody

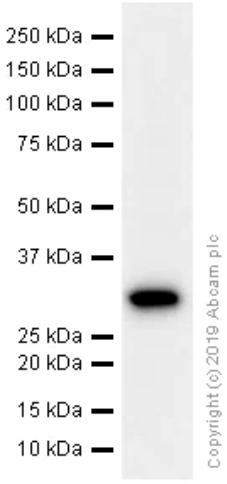
ab75858 at 1/1000 dilution staining CD99 in human tonsil by Immunohistochemistry, Paraffin-embedded tissue.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-CD99 antibody [EPR3097Y] (ab75858)

ab75858 (Purified) at 1:20 dilution (0.6 µg) immunoprecipitating CD99 in MOLT-4 whole cell lysate.
Lane 1 (input): MOLT-4 (Human lymphoblastic leukemia T lymphoblast) whole cell lysate 10 µg
Lane 2 (+): ab75858 & MOLT-4 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab75858 in MOLT-4 whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab75858)
All lanes:
Immunoprecipitation - Anti-CD99 antibody [EPR3097Y] (ab75858)

Predicted band size: 19 kDa



Western blot - Anti-CD99 antibody [EPR3097Y] (ab75858)

All lanes:
Western blot - Anti-CD99 antibody [EPR3097Y] (ab75858) at 1/1000 dilution

All lanes:
THP-1 (Human monocytic leukemia monocyte) whole cell lysates at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 19 kDa

Observed band size: 32 kDa

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