abcam

ab23617

Anti-CD99 antibody [DN16]

Key facts

Isotype	IgG
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Clone number	DN16
Purification technique	Affinity purification Protein G
Specificity	ab23617 recognises the human CD99 cell surface antigen, a 32kD glycoprotein expressed by all leucocytes. CD99 expression tends to be highest on immature cells.
Epitope	Epitope analysis of the DN16 clone suggests the antibody recognizes a minimal peptide sequence 'LPDNENKK' located between residues 32 and 39 towards the N-terminal region of the molecule. This sequence is present in both isoforms I and II but is largely absent from isoform 3 suggesting that the antibody will only recognize isoforms I and II (Gil et al. 2002).
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Expected

Species	Human

Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

IHC-Fr

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
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	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	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

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