abcam

ab21901

Biotin Anti-CD2 antibody [MEM-65]

Anti-CD2 antibody [MEM-65] conjugated to Biotin - suitable for flow cytometry, and reacts with human samples. Clone [MEM-65] is a mouse monoclonal antibody.

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	Biotin
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CD2 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P06729
Clone number	MEM-65
Purification technique	Affinity purification Protein G
Specificity	This antibody recognises a unique epitope of CD2 antigen implicated in T cell activation.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	1-5 µg/mL
Notes	ab18434 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information CD2

Function	CD2 interacts with lymphocyte function-associated antigen CD58 (LFA-3) and CD48/BCM1 to mediate adhesion between T-cells and other cell types. CD2 is implicated in the triggering of T-cells, the cytoplasmic domain is implicated in the signaling function.

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
Storage information	Avoid freeze / thaw cycle

Notes

The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.

Supplementary info

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

Activity summary	CD2 also known as T11 or LFA-2 acts as a cell surface glycoprotein expressed mainly on T-cells natural killer cells and thymocytes. This protein has a molecular mass of approximately 50-55 kDa. CD2 plays a critical role in facilitating cell-cell adhesion and signal transduction. It serves as a receptor for the CD58 ligand on antigen-presenting cells supporting the interaction between T-cells and these cells. By enhancing adhesion CD2 contributes to the formation of the immunological synapse necessary for effective immune response.

Biological function summary	The functioning of CD2 helps in the modulation of immune responses and T-cell activation. CD2 participates in signal transduction leading to cytokine production and proliferation. It is associated with the immunological synapse complex working closely with other surface molecules like Lck and CD3 to promote T-cell responses. This collaboration is vital for the development and function of immune cells driving adaptive immunity.
Pathways	CD2 engages in pathways integral to T-cell activation and signal transduction. A well-known pathway involving CD2 is the TCR (T-cell Receptor) signaling pathway where it partners with CD3 to initiate T-cell activation. Additionally CD2 influences the LAT (Linker for Activation of T-cells) pathway contributing to downstream signaling cascades that involve various signaling proteins such as Lck and ZAP-70 ensuring proper T-cell function.
Associated diseases and disorders	CD2 shows connections to autoimmune diseases and cancers. For instance its involvement in abnormal T-cell activation links CD2 to autoimmune conditions like rheumatoid arthritis. Also various leukemias demonstrate altered CD2 expression suggesting a role in cancer pathogenesis. Through these disease states CD2's interaction with the CD58 protein becomes critical as this interaction affects the activity of T-cells in the disease milieu influencing disease progression and treatment outcomes.

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

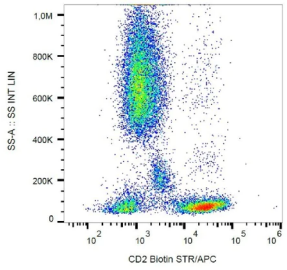
We do not recommend this combination. It is not covered by our product promise.

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.

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1 product image



Flow Cytometry - Biotin Anti-CD2 antibody [MEM-65] (ab21901)

CD2 Flow Cytometry staining using mouse Anti-CD2 antibody

Surface staining of human peripheral blood with ab21901, streptavidin-APC.

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