abcam

ab18276

FITC Anti-CD7 antibody [MEM-186]

Anti-CD7 antibody [MEM-186] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [MEM-186] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.097% Sodium azide Constituents: BSA, PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Cell within Human CD7. The exact immunogen used to generate this antibody is proprietary information. Database link P09564
Clone number	MEM-186

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	20 µL for 10^6 Cells
Notes	Use 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

ab91356 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information CD7

Function

Transmembrane glycoprotein expressed by T-cells and natural killer (NK) cells and their precursors (PubMed:7506726). Plays a costimulatory role in T-cell activation upon binding to its ligand K12/SECTM1 (PubMed:10652336). In turn, mediates the production of cytokines such as IL-2 (PubMed:1709867). On resting NK-cells, CD7 activation results in a significant induction of interferon-gamma levels (PubMed:7506726).

Storage

Shipped at conditions

Blue Ice

Appropriate short-term storage conditions

+4°C

Appropriate long-term storage conditions

+4°C

Notes

The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use.

Supplementary info

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

Activity summary

CD7 also known as Leu-9 or GP40 is a cell surface protein with a mass of approximately 40 kDa. The target is mainly expressed on T cells and NK cells and can be found during early T-cell development. Researchers also report CD7 expression in some B cell lineage progenitors. The CD7 function involves mediating cell signal transduction which contributes to the activation and differentiation of immune cells making it an important target in immunology studies.

Biological function summary

CD7 plays a role in modulating interactions between immune cells without being part of a larger complex. It bridges interactions promoting immune responses by influencing T cell proliferation and cytokine production. CD7 control is important in regulating immune response intensity and provides an essential checkpoint in

	immune system modulation. Variations in CD7 function can significantly influence immune cell behavior impacting host defense mechanisms.
Pathways	CD7 participates in immune signaling pathways such as the T-cell receptor (TCR) signaling pathway. This pathway is essential for T cell activation and involves proteins like CD3 and ZAP-70 which work together with CD7 to transduce activation signals. Alterations in the CD7 pathway can affect the downstream signaling events leading to changes in immune cell activation and function.
Associated diseases and disorders	Aberrations in CD7 expression or function link to conditions like T-cell acute lymphoblastic leukemia (T-ALL) and certain autoimmune diseases. In T-ALL abnormal CD7 expression serves as an indicator for diagnosis and disease progression monitoring. CD7 also interacts with proteins such as CD45 and CD3 which play roles in leukemogenesis and immune system dysregulation. Studies also explore anti-CD7 strategies for therapeutic interventions aiming to modulate its activity for treating these conditions effectively.

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

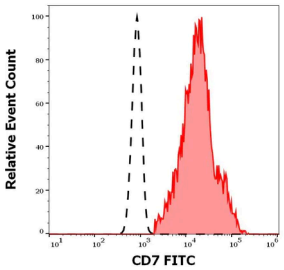
We do not recommend this combination. It is not covered by our product promise.

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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Terms & Conditions.

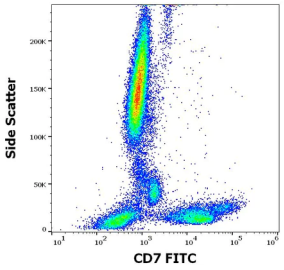
2 product images



Flow Cytometry - FITC Anti-CD7 antibody [MEM-186] (ab18276)

CD7 Flow Cytometry staining of Human peripheral blood using mouse Anti-CD7 antibody

Separation of human CD7 positive lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using ab18276 (20 ul reagent / 100 ul of peripheral whole blood).



Flow Cytometry - FITC Anti-CD7 antibody [MEM-186] (ab18276)

CD7 Flow Cytometry staining of Human peripheral blood using mouse Anti-CD7 antibody

Flow cytometry surface staining pattern of human peripheral whole blood stained using ab18276 (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'.