abcam

ab313952

PE Anti-CD7 antibody [EPR22065]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR22065
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/12500

Notes	-

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

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 duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

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	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.

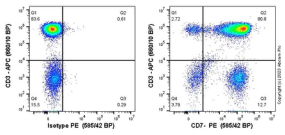
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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1 product image



Flow Cytometry - PE Anti-CD7 antibody [EPR22065] (ab313952)

CD7 Flow Cytometry staining of Human PBMC using rabbit Anti-CD7 antibody

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) with ab313952 (right) or Rabbit IgG (monoclonal) Phycoerythrin Isotype Control (ab209478) (left). PBMCs were incubated for 30 min on ice in 1x PBS containing 10 µg/ml human IgG and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab313952 or Rabbit IgG (monoclonal) Phycoerythrin Isotype Control (ab209478) (1x 10^6 in 100 µl at 0.04 µg/ml (1/12500)) for 30 min on ice. The cells were simultaneously stained with CD3.

Acquisition of >30000 events were collected using a 50 mW Yellow/Green laser (561nm) and 585/42 bandpass filter.

Events were gated on viable cells.

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