abcam

ab123511

Anti-CD90 / Thy1 antibody [5E10]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing THY1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P04216
Clone number	5E10
Purification technique	Affinity purification Protein A
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab123511 was determined to be > 95% pure by SDS-PAGE.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-3 µg/mL

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

Target data

See full target information THY1

Function	May play a role in cell-cell or cell-ligand interactions during synaptogenesis and other events in the brain.

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

Supplementary info

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

Activity summary	CD90 also known as Thy1 is a glycoprotein with a molecular mass of approximately 25-37 kDa. It is highly conserved across species and found on the surface of various cell types including fibroblasts neurons and endothelial cells. CD90 is expressed in these cells in tissues such as the brain thymus and lungs. Researchers use anti-CD90 antibodies for detection often in combination with CD90 FITC in immunofluorescence assays. CD90 serves as a useful cell marker particularly in identifying mesenchymal stem cells (MSCs).
Biological function summary	CD90 plays a role in cell-cell and cell-matrix interactions contributing to cellular adhesion migration and signal transduction. It functions as part of a complex involving integrins which mediate its interaction with the extracellular matrix. This protein also influences T-cell activation reflecting its importance in immune response regulation. Its presence aids in modulating response to injury and promoting tissue repair due to its association with stem and progenitor cells.
Pathways	CD90 engagement affects focal adhesion and MAPK signaling pathways. It interacts with integrins like αvβ3 and α5β1 influencing cell movement and proliferation processes. CD90 involvement in these pathways allows it to regulate

responses important for cell survival and communication within various tissues. These interactions highlight the protein's role in maintaining cellular homeostasis and regulating physiological processes.

Associated diseases and disorders

CD90 has associations with fibrosis and cancer. In fibrotic conditions CD90 expression affects fibroblast activity influencing tissue scarring in organs such as the liver and lungs. In cancer CD90 modifies tumor progression and metastasis by impacting cell adhesion and migration with connections to proteins like TGF-beta which further drive these processes. Understanding CD90 in disease contexts facilitates the development of therapeutic strategies aimed at modulating its activity.

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

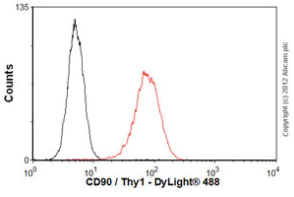
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - Anti-CD90 / Thy1 antibody [5E10] (ab123511)

CD90 / Thy1 Flow Cytometry staining using mouse Anti-CD90 / Thy1 antibody

Overlay histogram showing Jurkat cells stained with ab123511 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab123511, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488

goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive result in 80% methanol (5 min) fixed Jurkat cells used under the same conditions.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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