abcam

ab253259

APC Anti-CD133 antibody [293C3]

Anti-CD133 antibody [293C3] conjugated to APC - suitable for flow cytometry, and reacts with human samples. Clone [293C3] is a mouse monoclonal antibody and one of the most commonly used clones for flow cytometry.

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Key facts

Isotype	IgG2b
Host species	Mouse
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Full Length Protein corresponding to Human PROM1. The exact immunogen used to generate this antibody is proprietary information. Database link O43490
Clone number	293C3
Purification technique	Size-exclusion chromatography
Epitope	ab253259 recognizes the epitope 2 on human CD133 (CD133/2). This antibody is important for identification of human renal progenitors. Extracellular.
Purification notes	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µL for 10^6 Cells
Notes	Or 10 µL per 100 µL whole blood.

Target data

See full target information PROM1

Function	May play a role in cell differentiation, proliferation and apoptosis (PubMed:24556617). Binds cholesterol in cholesterol-containing plasma membrane microdomains and may play a role in the organization of the apical plasma membrane in epithelial cells. During early retinal development acts as a key regulator of disk morphogenesis. Involved in regulation of MAPK and Akt signaling pathways. In neuroblastoma cells suppresses cell differentiation such as neurite outgrowth in a RET-dependent manner (PubMed:20818439).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Supplementary info

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

Activity summary	CD133 also known as Prominin-1 is a transmembrane glycoprotein with a molecular weight of approximately 120 kDa. This protein stands out due to its expression in various stem and progenitor cells including those of the neural hematopoietic and epithelial lineages. CD133 is recognized for its distinct five transmembrane domains and two large extracellular loops. Researchers commonly use CD133 as a cell surface marker to identify stem and progenitor cells. The significance of CD133 extends to immunohistochemistry (IHC) and Western blot applications where it is a popular target for detection and analysis.
Biological function summary	CD133 is involved in maintaining the cellular architecture and signaling processes. It plays a role in cellular differentiation and proliferation while acting as a part of

	larger protein complexes on the cell surface. This protein is notable as it contributes significantly to the regulation of stem cell properties supporting the growth and repair in various tissues. Anti-CD133 antibodies are valuable tools in studying these functions due to their specificity in targeting this marker.
Pathways	CD133 participates in cellular signaling and transport pathways vital for intercellular communication and homeostasis. It interacts within pathways related to cell polarity and asymmetric division both essential for tissue development and maintenance. CD133 is associated with proteins like CD133/1 and CD133/2 which further highlights its involvement in these complex biological networks and on pathways such as the Wnt signaling pathway which regulates gene expression associated with cell proliferation and differentiation.
Associated diseases and disorders	Several studies indicate a strong relationship between CD133 expression and certain cancers such as glioblastoma and colorectal cancer. In these cases CD133 serves not only as a marker but also as an indicator of the presence of cancer stem cells which are capable of tumor initiation and maintenance. Furthermore researchers have identified connections between CD133 and other proteins such as c-Met (cMab) within these pathological contexts suggesting interactions that could contribute to disease progression and offering potential targets for therapeutic intervention.

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

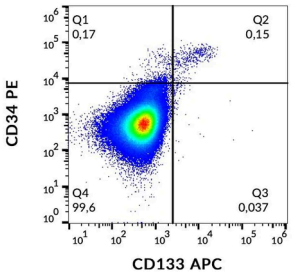
We do not recommend this combination. It is not covered by our product promise.

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 - APC Anti-CD133 antibody [293C3] (ab253259)

CD133 Flow Cytometry staining using mouse Anti-CD133 antibody

Flow cytometric analysis of human peripheral blood cells labeling CD133 with ab253259. Surface staining.

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