abcam

ab275953

PE Anti-CD109 antibody [W7C5]

Anti-CD109 antibody [W7C5] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [W7C5] is a mouse monoclonal antibody cited in 4 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CD109 protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q6YHK3
Clone number	W7C5
Purification technique	Size-exclusion chromatography

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.

Target data

See full target information CD109

Function	Modulates negatively TGFB1 signaling in keratinocytes.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze, Store in the dark

Supplementary info

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

Activity summary	CD109 also known as platelet activation antigen 3 is a glycoprotein with a molecular weight around 170 kDa. You can find it mostly expressed on the surface of platelets activated T-cells epithelial cells and some tumor cells. This protein belongs to the α2-macroglobulin/C3 C4 C5 family and plays a part in regulating several cellular activities. CD109 acts mechanically as a glycosylphosphatidylinositol (GPI)-anchored protein which suggests its involvement in signal transduction processes.
Biological function summary	The protein CD109 modulates several cellular functions including cell proliferation differentiation and immune response regulation. The protein works as a negative regulator of TGF-β signaling by forming a complex with the TGF-β receptor. This activity influences processes like wound healing and immune regulation where TGF-β plays a vital role. CD109 expression also impacts cellular interactions and behavior in the tumor microenvironment adding additional layers of regulation to its function.
Pathways	CD109 participates in the TGF-β signaling pathway and has effects on processes like fibrosis and epithelial-mesenchymal transition (EMT). This involvement connects CD109 functionally to components such as Smad proteins which mediate the signal for TGF-β pathway downstream effects. CD109's modulation within this pathway suggests a regulatory influence that may alter cellular responses under different physiological conditions.

Associated diseases and disorders	Research associates CD109 with various cancers where it appears to influence tumor progression and metastasis. The protein shows altered expression in glioblastoma and certain leukemias. Its involvement in these cancers links CD109 to other cancer-related proteins such as epidermal growth factor receptor (EGFR) which often shows interplay in signaling pathways involved in cell proliferation and survival. Understanding CD109's function and impact can offer insights into new therapeutic targets in oncology.

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

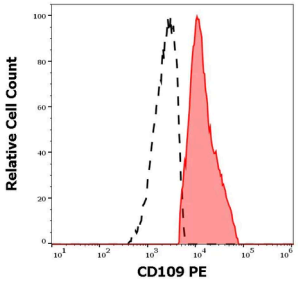
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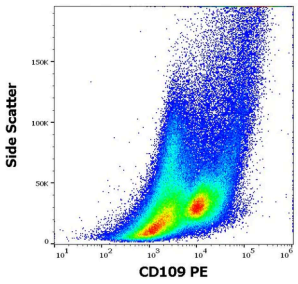
2 product images



Flow Cytometry - PE Anti-CD109 antibody [W7C5] (ab275953)

CD109 Flow Cytometry staining using mouse Anti-CD109 antibody

Separation of human CD109 positive cells (red-filled) from CD109 negative cells (black-dashed) in flow cytometry analysis (surface staining) of human PHA stimulated peripheral blood mononuclear cells stained using ab275953 (10 µl reagent per milion cells in 100 µl of cell suspension).



Flow Cytometry - PE Anti-CD109 antibody [W7C5] (ab275953)

CD109 Flow Cytometry staining using mouse Anti-CD109 antibody

Flow cytometry surface staining pattern of human PHA stimulated peripheral blood mononuclear cells stained using ab275953 (10 µl reagent per milion cells in 100 µl of cell suspension).

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