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Prominin-1 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52802

Product Information

Application	WB
Primary Accession	O43490
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Conjugate	Unconjugated
Immunogen	Purified recombinant human Prominin-1 protein fragments expressed in E.coli.
Purification	Affinity Purified
Calculated MW	97202

Additional Information

Gene ID	8842
Other Names	Prominin-1;Antigen AC133;Prominin-like protein 1;CD133.
Dilution	WB~~1:3000
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	PROM1
Synonyms	PROML1
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).

Cellular Location	Apical cell membrane; Multi-pass membrane protein. Cell projection, microvillus membrane; Multi-pass membrane protein. Cell projection, cilium, photoreceptor outer segment Endoplasmic reticulum. Endoplasmic reticulum-Golgi intermediate compartment. Note=Found in extracellular membrane particles in various body fluids such as cerebrospinal fluid, saliva, seminal fluid and urine
Tissue Location	Isoform 1 is selectively expressed on CD34 hematopoietic stem and progenitor cells in adult and fetal bone marrow, fetal liver, cord blood and adult peripheral blood. Isoform 1 is not detected on other blood cells. Isoform 1 is also expressed in a number of non-lymphoid tissues including retina, pancreas, placenta, kidney, liver, lung, brain and heart. Found in saliva within small membrane particles. Isoform 2 is predominantly expressed in fetal liver, skeletal muscle, kidney, and heart as well as adult pancreas, kidney, liver, lung, and placenta. Isoform 2 is highly expressed in fetal liver, low in bone marrow, and barely detectable in peripheral blood Isoform 2 is expressed on hematopoietic stem cells and in epidermal basal cells (at protein level). Expressed in adult retina by rod and cone photoreceptor cells (at protein level)

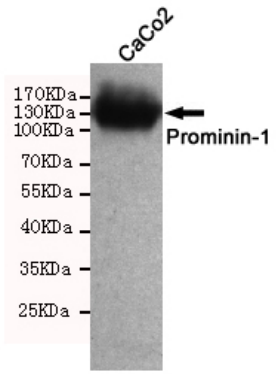
Background

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).

References

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Yu Y.,et al.J. Biol. Chem. 277:20711-20716(2002).
Lin J.,et al.Submitted (OCT-2003) to the EMBL/GenBank/DDBJ databases.
Wang X.Y.,et al.Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Western blot detection of Prominin-1 in CaCo2 cell lysate using Prominin-1 mouse mAb (1:3000 diluted).Predicted band size:133KDa.Observed band size:133KDa

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