Anti-CD133 (Prominin-1), clone 17A6.1

Monoclonal Antibody

Cat. # MAB4399

Lot # 2111396

pack size: 100 µg

Store at 2-8°C

FOR RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC PROCEDURES
NOT FOR HUMAN OR ANIMAL CONSUMPTION

Certificate of Analysis

Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/ Region	Host Species	Molecular Weight	Accession #
WB, IH	H	IgG2aκ	N/A	M	~97 kDa	NP_001139319

Background

CD133 (Prominin-1) belongs to a family of cell-surface glycoproteins harboring five transmembrane domains, and is found in both normal cells and in several tumor and cancer cell types. In epithelial cells, particularly neuroepithelial stem cells, CD133 was found in the microvilli, primary cilium, and midbody. These three types of apical membrane protrusions are subject to remodeling during epithelial and neuroepithelial cell differentiation. CD133 may play a key role in apical plasma membrane organization in epithelial cells. CD133 acts a regulator of disk morphogenesis in early retinal development and also suppresses cell differentiation in a RET-dependent manner in neuroblastoma cells. Overexpression of this glycoprotein has been reported in acute myelogenous leukaemia, acute lymphocytic leukaemia, chronic lymphocytic leukaemia, myelodysplastic syndromes, retinoblastomas, glioblastomas and kidney carcinomas. High levels of CD133 were also found in pancreatic, gastric, colorectal, and hepatocellular cancers.

Presentation

Purified mouse monoclonal IgG2aκ in buffer containing 0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl with 0.05% sodium azide.

Concentration

1 mg/mL

Species Cross-reactivity

Demonstrated to react with Human.

Immunogen

Recombinant protein corresponding to human CD133 (Prominin-1).

Molecular Weight

~97 kDa observed.

CD133 has multiple isoforms ranging from 92 kDa to 97 kDa.

Method of Purification

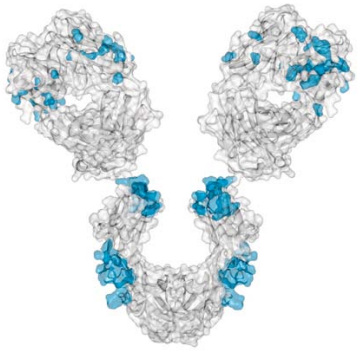
Protein G Purified

Storage and Handling

Stable for 1 year at 2-8°C from date of receipt.

Control

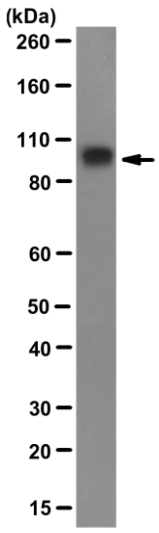
Recombinant CD133 (Prominin-1).



Quality Control Testing

Evaluated by Western Blotting in CD133 (Prominin-1) recombinant protein.

Western Blotting Analysis: 0.2 µg/mL of this antibody detected CD133 (Prominin-1) in 2.5 µg of recombinant CD133 (Prominin-1).



Western Blotting Analysis:
Representative lot data.
Recombinant CD133 (Prominin-1) was probed with Anti-CD133 (Prominin-1) (0.2 µg/mL).
Proteins were visualized using a Goat Anti-Mouse IgG secondary antibody conjugated to HRP and a chemiluminescence detection system.

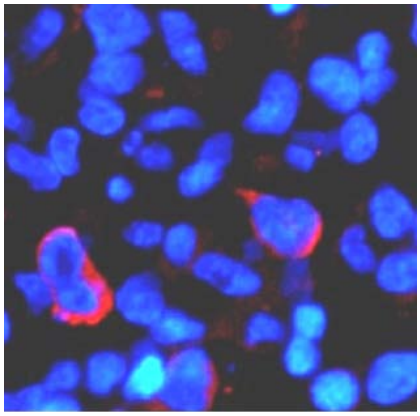
Arrow indicates CD133 (Prominin-1) (~97 kDa).

References

Background References:
1. Smith, L.M., *et al*. (2008). *Br J Cancer*. 99(1): 100-109.
2. Takenobu, H., *et al*. (2011). *Oncogene*. 30(1): 97-105.
3. Corbeil, D., *et al*. (2010). *FEBS Lett*. 584(9): 1659-1664.

Additional Research Applications

Immunohistochemistry Analysis: A 1:100 dilution from a representative lot detected CD133 (Prominin-1) in human glioblastoma cells.



Immunohistochemistry Analysis:
Representative lot data.
A tumor section of human glioblastomas was prepared for Immunohistochemistry Fluorescent Analysis. Immunostaining was performed using a 1:100 dilution of Anti-CD133 (Prominin-1) (Cat. No. MAB4339) (red). Positive staining was observed in human glioblastoma cells.

PROTOCOL

Western Blotting

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA or milk with 0.05% Tween®-20 surfactant for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of the primary antibody, diluted in freshly prepared 5% BSA or milk for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST.
5. Incubate the PVDF in the secondary reagent of choice in 5% milk for 1 hour with agitation at room temperature.
6. Wash the PVDF 3-5 times with TBST.
7. Visualize with enhanced chemiluminescence (ECL) method of choice.

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RELATED PRODUCTS (specific)

cat #	description
AP124P	Goat anti-Mouse IgG, Peroxidase Conjugated, H+L

RELATED PRODUCTS (non-specific)

cat #	description
WBAVDBASE	SNAP i.d.® Protein Detection System
WBAVDABTR	SNAP i.d. Antibody Collection Tray
WBAVDR0LL	SNAP i.d. Blot Roller
WBAVDBH03	SNAP i.d. Triple Well Blot Holder
WBAVDBH01	SNAP i.d. Single Well Blot Holder
WBAVDBH02	SNAP i.d. Double Well Blot Holder
IPVH00010	Immobilon®-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm membrane
IPFL00010	Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm membrane
IPVH07850	Immobilon-P 7 x 8.4 cm PVDF 0.45 mm membrane (sheet) 50/pk
ISEQ00010	Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm membrane
ISEQ07850	Immobilon-P 7 x 8.4 cm PVDF 0.2 mm membrane (sheet) 50/pk
IPFL07810	Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm membrane (sheet) 10/pk
WBKLS0100	Immobilon Western Chemilum HRP Substrate 100 mL
2060	Re-Blot™ Western Blot Recycling Kit
2500	Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	Blot Quick Blocker™ Membrane Blocking Agent 175G
WBLUC0500	Luminata Classico Western HRP substrate, 500 mL
WBLUR0500	Luminata Crescendo Western HRP substrate, 500 mL

Please visit www.millipore.com for additional product information, test data and references
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