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CD166 Rabbit pAb

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Catalog # AP52264

Product Information

Application	WB
Primary Accession	Q13740
Reactivity	Human
Predicted	Mouse, Rat, Chicken, Dog, Pig, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	65102
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CD166
Epitope Specificity	451-583/583
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Single-pass type I membrane protein.
SIMILARITY	Contains 3 Ig-like C2-type (immunoglobulin-like) domains.Contains 2 Ig-like V-type (immunoglobulin-like) domains.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CD166 is a member of the Ig superfamily and is expressed on activated T-cells, B cells and other cells including thymic epithelial cells, fibroblasts, keratinocytes and neurons. CD6 has been identified as a receptor for CD166. The expression of CD166 is up-regulated in low-grade prostate tumors and down-regulated in high-grade tumors; may play role in progression of prostate cancer.

Additional Information

Gene ID	214
Other Names	CD166 antigen, Activated leukocyte cell adhesion molecule, CD166, ALCAM, MEMD {ECO:0000303|PubMed:9502422}
Target/Specificity	Spleen, placenta, liver, and weakly in liver. Expressed by activated T-cells, B-cells, monocytes and thymic epithelial cells. Expressed by neurons in the brain. Restricted expression in tumor cell lines. Preferentially expressed in highly metastasizing melanoma cell lines.
Dilution	WB=1:500-2000,Flow-Cyt=1 μg/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ALCAM
Synonyms	MEMD {ECO:0000303|PubMed:9502422}
Function	Cell adhesion molecule that mediates both heterotypic cell- cell contacts via its interaction with CD6, as well as homotypic cell- cell contacts (PubMed:15048703, PubMed:15496415, PubMed:16352806, PubMed:23169771, PubMed:24945728, PubMed:7760007). Promotes T-cell activation and proliferation via its interactions with CD6 (PubMed:15048703, PubMed:16352806, PubMed:24945728). Contributes to the formation and maturation of the immunological synapse via its interactions with CD6 (PubMed:15294938, PubMed:16352806). Mediates homotypic interactions with cells that express ALCAM (PubMed:15496415, PubMed:16352806). Acts as a ligand for the LILRB4 receptor, enhancing LILRB4-mediated inhibition of T cell proliferation (PubMed:29263213). Required for normal hematopoietic stem cell engraftment in the bone marrow (PubMed:24740813). Mediates attachment of dendritic cells onto endothelial cells via homotypic interaction (PubMed:23169771). Inhibits endothelial cell migration and promotes endothelial tube formation via homotypic interactions (PubMed:15496415, PubMed:23169771). Required for normal organization of the lymph vessel network. Required for normal hematopoietic stem cell engraftment in the bone marrow. Plays a role in hematopoiesis; required for normal numbers of hematopoietic stem cells in bone marrow. Promotes in vitro osteoblast proliferation and differentiation (By similarity). Promotes neurite extension, axon growth and axon guidance; axons grow preferentially on surfaces that contain ALCAM. Mediates outgrowth and pathfinding for retinal ganglion cell axons (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:Q61490}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q61490}. Note=Detected at the immunological synapse, i.e, at the contact zone between antigen-presenting dendritic cells and T-cells (PubMed:15294938, PubMed:16352806). Colocalizes with CD6 and the TCR/CD3 complex at the immunological synapse (PubMed:15294938).
Tissue Location	Detected on hematopoietic stem cells derived from umbilical cord blood (PubMed:24740813). Detected on lymph vessel endothelial cells, skin and tonsil (PubMed:23169771). Detected on peripheral blood monocytes (PubMed:15048703). Detected on monocyte- derived dendritic cells (at protein level) (PubMed:16352806). Detected at low levels in spleen, placenta, liver (PubMed:9502422). Expressed by activated T-cells, B-cells, monocytes and thymic epithelial cells (PubMed:7760007). Isoform 1 and isoform 3 are detected in vein and artery endothelial cells, astrocytes, keratinocytes and artery smooth muscle cells (PubMed:15496415). Expressed by neurons in the brain Restricted expression in tumor cell lines. Detected in highly metastasizing melanoma cell lines (PubMed:9502422)

Background

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The expression of CD166 is up-regulated in low-grade prostate tumors and down-regulated in high-grade

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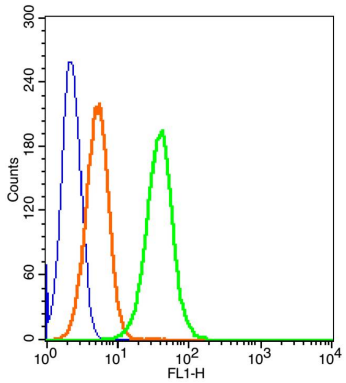
References

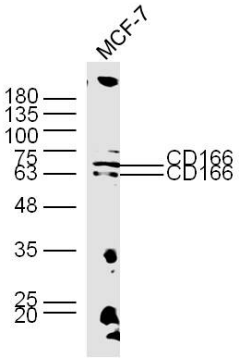
Bowen M.A.,et al.J. Exp. Med. 181:2213-2220(1995).
Ikeda K.,et al.J. Biol. Chem. 279:55315-55323(2004).
Abe Y.,et al.Submitted (APR-2006) to the EMBL/GenBank/DDBJ databases.
Muzny D.M.,et al.Nature 440:1194-1198(2006).
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Blank control: Molt-4 Cells(blue). Primary Antibody: Rabbit Anti-CD166/FITC Conjugated antibody (AP52264/AF488), Dilution: 1 µg in 100 µL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG/AF488orange) ,used under the same conditions.

Protocol
The cells were fixed with 2% paraformaldehyde (10 min) . The cells were washed twice with 1 X PBS. The cells were incubated in 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions followed by the incubated with antibody (AP52264/AF488, 1 µg /1x10^6 cells) for 30 min on ice. Acquisition of 20,000 events was performed.



Sample:
MCF-7 Cell (Human) Lysate at 30 ug
Primary: Anti-CD166 (AP52264) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 62 kD
Observed band size: 62/70 kD