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CD151 Rabbit pAb

Catalog # AP96706

Product Information

Application	WB
Primary Accession	P48509
Other Accession	P48509
Reactivity	Human, Mouse
Predicted	Rat, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28295
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CD151
Epitope Specificity	101-200/253
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the tetraspanin (TM4SF) family.
SUBUNIT	Interacts with integrins alpha3beta1, alpha5beta1, alpha3beta1 and alpha6beta4, with CD9 and CD181.
DISEASE	Nephropathy with pretibial epidermolysis bullosa and deafness (NPEBD) [MIM:609057]: A disorder characterized by the association of hereditary nephritis, epidermolysis bullosa, deafness, and beta-thalassemia minor. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. This encoded protein is a cell surface glycoprotein that is known to complex with integrins and other transmembrane 4 superfamily proteins. It is involved in cellular processes including cell adhesion and may regulate integrin trafficking and/or function. This protein enhances cell motility, invasion and metastasis of cancer cells. Multiple alternatively spliced transcript variants that encode the same protein have been described for this gene. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	977
Other Names	EBS7; GP27; MER2; PETA-3; RAPH; SFA1; TSPAN24; CD151_HUMAN; CD151; Membrane glycoprotein SFA-1; Platelet-endothelial tetraspan antigen 3

	(PETA-3); Tetraspanin-24 (Tspan-24); CD151 molecule (Raph blood group); CD151 antigen; CD151 antigen (Raph blood group)
Dilution	WB=1:500-2000
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	CD151
Synonyms	TSPAN24
Function	Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling. Plays a role in various cellular and molecular mechanism through its association with both integrin and non-integrin proteins. These interactions facilitate critical cellular functions, including cell-to-cell communication, wound healing, platelet aggregation, trafficking, cell motility, and angiogenesis (PubMed:17045834, PubMed:24723389, PubMed:31488507). Via interaction with JAM-A/F11R and integrin ITGA3:ITGB1, promotes the recruitment of signaling molecules such as RAC1, CDC42 and RhoGTPases to facilitate the polarization of epithelial cells and the reorganization of the actin cytoskeleton, which are critical steps in cell migration process (PubMed:22843693, PubMed:35067832). Regulates the glycosylation pattern of ITGA3:ITGB1 thereby modulating its activity (PubMed:18852263). Plays an essential role in the maintenance of central laminin-binding integrin ITGA6:ITGB4-containing adhesion complexes (PubMed:31488507). Essential for the proper assembly of the glomerular and tubular basement membranes in kidney (PubMed:15265795). Contributes to T-cell activation by modulating integrin signaling leading to activation of downstream targets PTK2 and MAPK1/MAPK3 (PubMed:24723389).
Cellular Location	Cell membrane; Multi-pass membrane protein Note=Relocalizes to the immune synapse in T-cells upon activation
Tissue Location	Expressed in a variety of tissues including vascular endothelium and epidermis. Expressed on erythroid cells, with a higher level of expression in erythroid precursors than on mature erythrocytes (PubMed:15265795). Acts as a sensitive T-cell activation marker (PubMed:32978478).

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