

CD162 Rabbit pAb

Catalog # AP96766

Product Information

Application	WB
Primary Accession	Q62170
Other Accession	Q62170
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41842
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse PSGL-1/CD162
Epitope Specificity	231-330/397
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 selectin/LECAM family. Contains 1 C-type lectin domain. Contains 1 EGF-like domain. Contains 8 Sushi (CCP/SCR) domains.
SUBUNIT	Homodimer; disulfide-linked. Interaction with P-, E- and L-selectins, through their lectin/EGF domains, is required for promoting recruitment and rolling of leukocytes. These interactions require sialyl Lewis X glycan modification but there is a differing dependence for tyrosine sulfations. Sulfation on Tyr-51 of PSGL1 is most important for high affinity L-selectin/SELL binding while P-selectin/SELP requires sulfation on Tyr-48. E-selectin/SELE binds with much lower affinity and requires the sLe(x) epitope, but apparently not tyrosine sulfation. Dimerization appears not to be required for P-selectin/SELP binding. Interacts with SNX20. Interacts with MSN and SYK; mediates the activation of SYK by SELPLG.
Post-translational modifications	Displays complex, core-2, sialylated and fucosylated O-linked oligosaccharides, at least some of which appear to contain poly-N-acetylglucosamine with varying degrees of substitution. Mainly disialylated or neutral forms of the core-2 tetrasaccharide, Galbeta1-->4GlcNAcbeta1-->6(Galbeta1-->3)GalNAcOH. The GlcN:GalN ratio is approximately 2:1 and the Man:Fuc ratio 3:5. Contains about 14% fucose with alpha-1,3 linkage present in two forms: One species is a disialylated, monofucosylated glycan, and the other, a monosialylated, trifucosylated glycan with a polylactosamine backbone. The fucosylated forms carry the Lewis antigen and are important for interaction with selectins and for functioning in leukocyte rolling. The modification containing the sialyl Lewis X glycan is on Thr-57. No sulfated O-glycans. Some N-glycosylation. Sulfation, in conjunction with the SLe(x)-containing glycan, is necessary for P- and L-selectin binding. High affinity P-selectin binding has a preferred requirement for the isomer sulfated on both Tyr-48 and Tyr-51, whereas L-selectin binding requires predominantly sulfation on Tyr-51 with sulfation on Tyr-48 playing only a minor role. These sulfations play an important role in L- and P-selectin-mediated neutrophil recruitment, and leukocyte rolling.
DISEASE	Defects in SELP may be a cause of susceptibility to ischemic stroke (ISCHSTR)

[MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.

Important Note

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

This gene encodes a glycoprotein that functions as a high affinity counter-receptor for the cell adhesion molecules P-, E- and L- selectin expressed on myeloid cells and stimulated T lymphocytes. As such, this protein plays a critical role in leukocyte trafficking during inflammation by tethering of leukocytes to activated platelets or endothelia expressing selectins. This protein requires two post-translational modifications, tyrosine sulfation and the addition of the sialyl Lewis x tetrasaccharide (sLex) to its O-linked glycans, for its high-affinity binding activity. Aberrant expression of this gene and polymorphisms in this gene are associated with defects in the innate and adaptive immune response. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Apr 2011].

Additional Information

Other Names	CD162; CLA; PSGL-1; PSGL1; SelpI; SELPL_HUMAN; SELPLG; Selectin P ligand; SELPL_MOUSE; Selp1
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	SelpIlg
Synonyms	Selp1, SelpI
Function	A SLe(x)-type proteoglycan, which through high affinity, calcium-dependent interactions with E- and P-selectins, mediates rapid rolling of leukocytes over vascular surfaces during the initial steps in inflammation. Critical for the initial leukocyte capture.
Cellular Location	Cell membrane; Single-pass membrane protein
Tissue Location	Highly expressed in blood, bone marrow, brain, adipose tissue, spleen, and thymus. Also expressed in heart, kidney, liver, muscle, ovary, and stomach.

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