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PEAR1 Antibody

Catalog # ASC11237

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q5VY43
Other Accession	NP_001073940, 122937343
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	110666
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PEAR1 antibody can be used for detection of PEAR1 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	375033
Other Names	Platelet endothelial aggregation receptor 1, hPEAR1, Multiple epidermal growth factor-like domains protein 12, Multiple EGF-like domains protein 12, PEAR1, MEGF12
Target/Specificity	PEAR1;
Reconstitution & Storage	PEAR1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	PEAR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PEAR1
Synonyms	MEGF12
Function	Required for SVEP1-mediated platelet activation, via its interaction with SVEP1 and subsequent activation of AKT/mTOR signaling (PubMed:36792666). May be involved in the early stages of hematopoiesis (By similarity).
Cellular Location	Cell membrane; Single-pass membrane protein. Cell projection, lamellipodium. Note=Detected on the cell surface in resting platelets.

Tissue Location	Expressed in umbilical vein endothelial cells and platelets (at protein level) (PubMed:15851471, PubMed:36792666) Expressed in coronary artery smooth muscle cells (at protein level) (PubMed:36792666). Expressed in heart, kidney, skeletal muscle, pancreas, ovary, breast, lung, brain cortex, hypothalamus, spinal cord, dorsal root ganglion (PubMed:15851471). Expressed in umbilical artery endothelial cells, megakaryocytes, osteoblasts, coronary muscle and erythroid cells (PubMed:15851471).

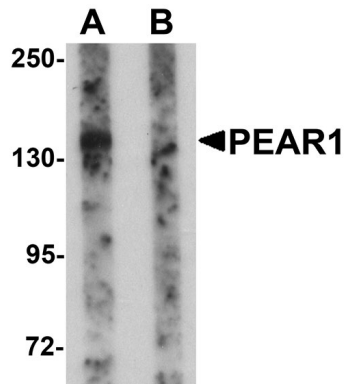
Background

PEAR1 Antibody: Platelet endothelial aggregation receptor 1 (PEAR1) is a platelet receptor that signals upon the formation of platelet-platelet contacts independent of platelet activation and secondary to platelet aggregation. Upon platelet aggregation stimulated by physiological agonists, PEAR1 becomes tyrosine- and serine-phosphorylated; the tyrosine phosphorylation can be inhibited by eptifibatide, an aIIbbeta3 antagonist that also inhibits platelet aggregation. Recent studies have indicated that genetic variations in PEAR1, may be associated with enhanced agonist-induced platelet aggregation.

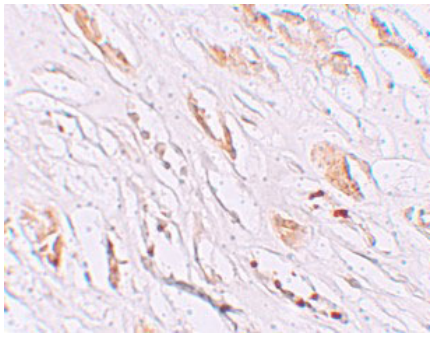
References

Nanda N, Bao M, Lin H, et al. Platelet endothelial aggregation receptor 1 (PEAR1), a novel epidermal growth factor repeat-containing transmembrane receptor, participates in the platelet contact-induced activation. J. Biol. Chem.2005; 280:24680-9.
Herrera-Galeano JE, Becker DM, Wilson AF, et al. A novel variant in the platelet endothelial aggregation receptor-1 gene is associated with increased platelet aggregabili. Arterioscler. Thromb. Vasc. Biol.2008; 28:1484-90.

Images

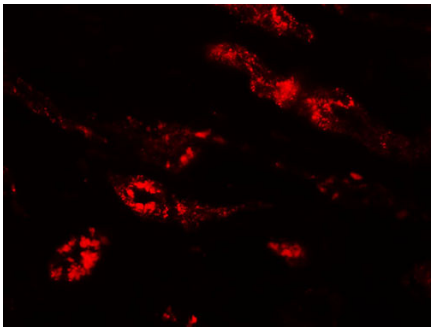


Western blot analysis of PEAR1 in rat kidney tissue lysate with PEAR1 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of PEAR1 in human kidney tissue with PEAR1 antibody at 2.5 µg/mL.

Immunofluorescence of PEAR1 in human kidney tissue with PEAR1 antibody at 20 µg/mL.



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