

**PEAR1 Antibody**  
**Catalog # ASC11237****Specification**

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**PEAR1 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q5VY43</a>
Other Accession	<a href="#">NP_001073940</a> , <a href="#">122937343</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	PEAR1 antibody can be used for detection of PEAR1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

**PEAR1 Antibody - Additional Information**

Gene ID	375033
Target/Specificity	
PEAR1;	

**Reconstitution & Storage**

PEAR1 antibody can be stored at 4°C for three months and -20°C, 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.

**PEAR1 Antibody - 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: <http://www.uniprot.org/citations/36792666> target="\_blank">36792666</a>). 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.

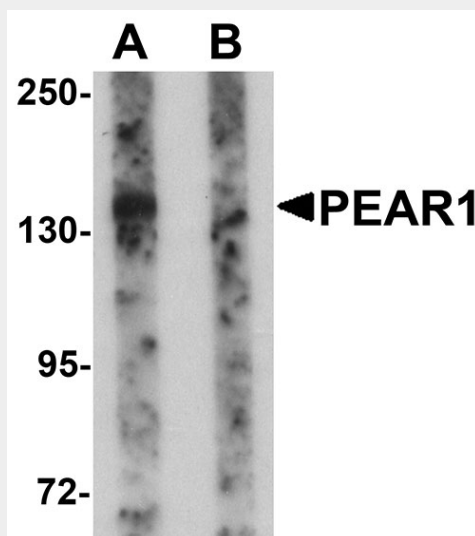
**Tissue Location**

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).

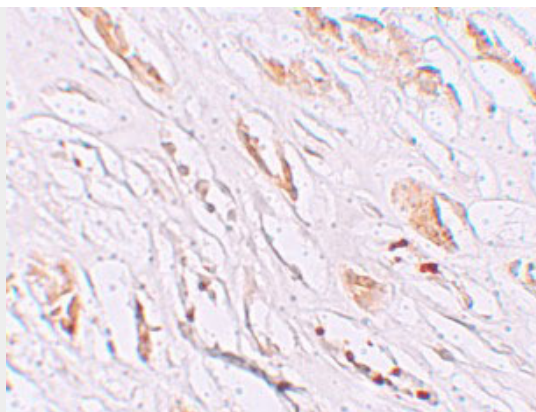
**PEAR1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

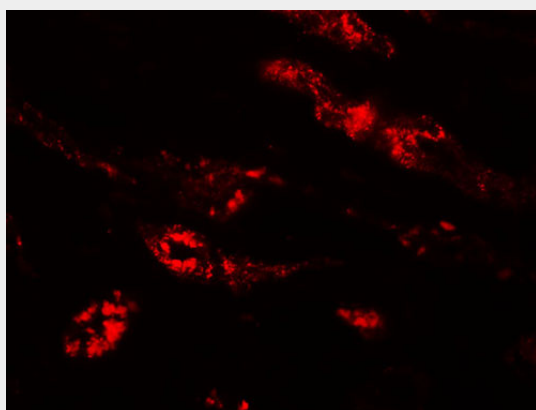
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**PEAR1 Antibody - Images**

Western blot analysis of PEAR1 in rat kidney tissue lysate with PEAR1 antibody at 1  $\mu$ g/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.

### **PEAR1 Antibody - 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  $\alpha IIb\beta 3$  antagonist that also inhibits platelet aggregation. Recent studies have indicated that genetic variations in PEAR1, may be associated with enhanced agonist-induced platelet aggregation.

### **PEAR1 Antibody - 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 aggregability. *Arterioscler. Thromb. Vasc. Biol.* 2008; 28:1484-90.