

PACS1 Antibody
Catalog # ASC11927**Specification**

PACS1 Antibody - Product Information

Application	WB, IF
Primary Accession	Q6VY07
Other Accession	NP_060496 , 30089916
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 106 kDa; Observed: 105 kDa
Application Notes	KDa PACS1 antibody can be used for detection of PACS1 by Western blot at 1 - 2 µg/ml. For immunofluorescence start at 20 µg/mL.

PACS1 Antibody - Additional Information

Gene ID 55690

Target/Specificity

PACS1; PACS1 antibody is human, mouse and rat reactive. Multiple isoforms of PACS1 are known to exist. PACS1 antibody is predicted to not cross-react with PACS2.

Reconstitution & Storage

PACS1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

PACS1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PACS1 Antibody - Protein Information**Name** PACS1**Synonyms** KIAA1175**Function**

Coat protein that is involved in the localization of trans- Golgi network (TGN) membrane proteins that contain acidic cluster sorting motifs. Controls the endosome-to-Golgi trafficking of furin and mannose-6-phosphate receptor by connecting the acidic-cluster- containing cytoplasmic domain of these molecules with the adapter- protein complex-1 (AP-1) of endosomal clathrin-coated membrane pits. Involved in HIV-1 nef-mediated removal of MHC-I from the cell surface to the TGN. Required for normal ER Ca²⁺ handling in lymphocytes. Together with WDR37, it plays an essential role in lymphocyte development, quiescence and survival. Required for stabilizing peripheral lymphocyte populations (By similarity).

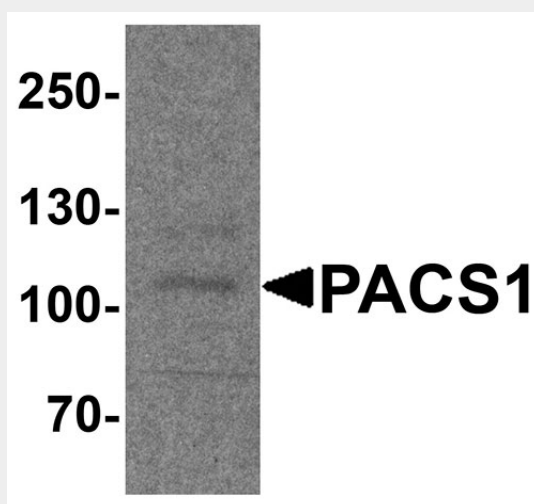
Cellular Location

Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:O88588}. Note=Localizes in the perinuclear region, probably the TGN.

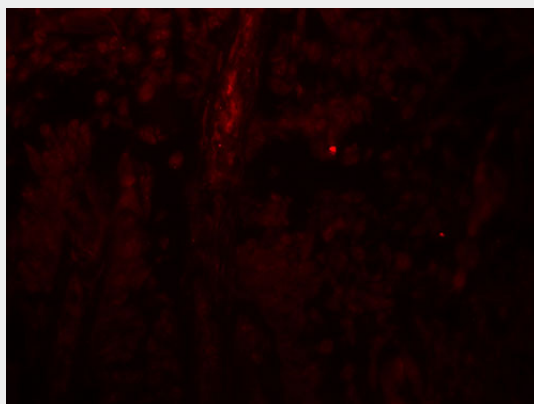
PACS1 Antibody - Protocols

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](#)

PACS1 Antibody - Images

Western blot analysis of PACS1 in rat bladder tissue lysate with PACS1 antibody at 1 µg/ml.



Immunofluorescence of PACS1 in human bladder tissue with PACS1 antibody at 20 µg/mL.

PACS1 Antibody - Background

The phosphofurin acidic cluster sorting protein 1 (PACS1), belongs to the PACS family of cytosolic connector proteins that localize different membrane proteins to the trans-Golgi network (TGN) (1,2). Mutations in PACS1 cause defects in cranial-neural crest migration during early development, leading to a recognizable intellectual disability syndrome (3). PACS1, along with the related protein PACS2, also plays a role in HIV-1 Nef-mediated downregulation of cell surface MHC-I molecules to the TGN, thereby enabling HIV-1 to escape immune surveillance (4).

PACS1 Antibody - References

Wan L, Molloy SS, Thomas L, et al. PACS-1 defines a novel gene family of cytosolic sorting proteins required for trans-Golgi network localization. *Cell* 1998; 94:205-16.

Kottgen M, Benzing T, Simmen T, et al. Trafficking of TRPP2 by PACS proteins represents a novel mechanism of ion channel regulation. *EMBO J.* 2005; 24:705-16.

Schuurs-Hoeijmakers JH, Oh EC, Vissers LE, et al. Recurrent de novo mutations in PACS1 cause defective cranial-neural-crest migration and define a recognizable intellectual-disability syndrome. *Am. J. Hum. Genet.* 2012; 91:1122-7.

Dikeakos JD, Thomas L, Kwon G, et al. An interdomain binding site on HIV-1 Nef interacts with PACS-1 and PACS2 on endosomes to down-regulate MHC-I. *Mol. Biol. Cell* 2012; 23:2184-97.