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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 KDa**
Application Notes	**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℃ for three months and -20℃, 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).

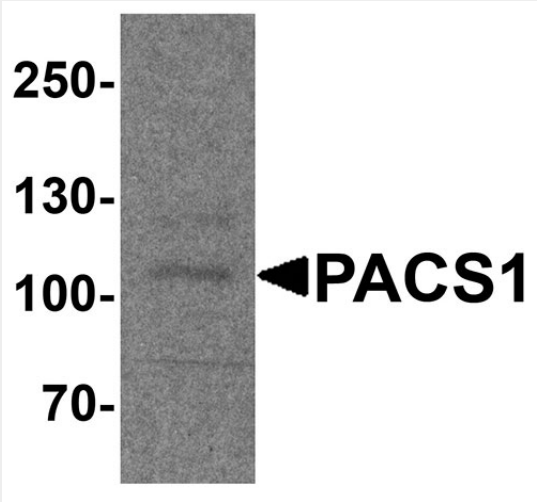
Cellular Location
Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:O88588}. Note=Localizes in the perinuclear region, probably the TGN.

PACS1 Antibody - Protocols

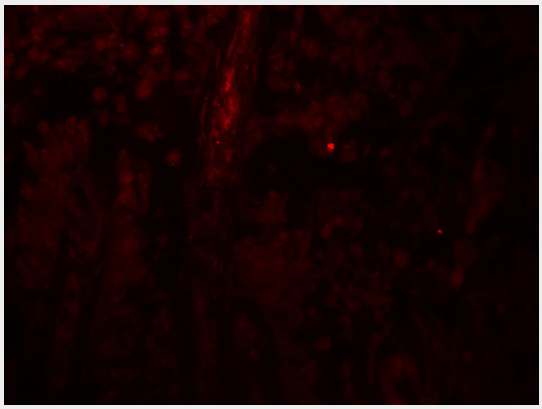
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- 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.