10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PACS2 Antibody
Catalog # ASC11928

Specification

PACS2 Antibody - Product Information

Application	**IHC**
Primary Accession	Q86VP3
Other Accession	NP_056012, 23241
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 98 kDa** **Observed: 95 kDa KDa**
Application Notes	**PACS2 antibody can be used for detection of PACS2 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.**

PACS2 Antibody - Additional Information

Gene ID **23241**

Target/Specificity
PACS2 antibody was raised against a 17 amino acid peptide near the center of human PACS2.

The immunogen is located within amino acids 330 - 380 of PACS2.

Reconstitution & Storage
PACS2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
PACS2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PACS2 Antibody - Protein Information

Name PACS2 (HGNC:23794)

Synonyms KIAA0602, PACS1L

Function
Multifunctional sorting protein that controls the endoplasmic reticulum (ER)-mitochondria communication, including the apposition of mitochondria with the ER and ER homeostasis. In addition, in response to apoptotic inducer, translocates BIB to mitochondria, which initiates a sequence of events including the formation of mitochondrial truncated BID, the release of cytochrome c, the activation of caspase-3 thereby causing cell death. May also be involved in ion channel trafficking, directing acidic cluster-containing ion channels to distinct subcellular compartments.

Cellular Location
Endoplasmic reticulum. Mitochondrion

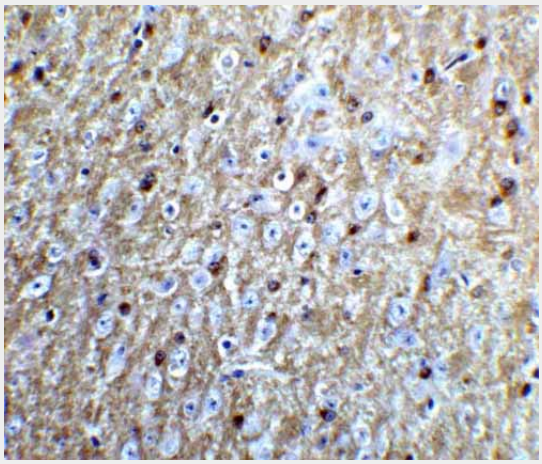
Tissue Location
Broadly expressed, with greatest levels in skeletal muscle followed by heart, brain, pancreas and testis

PACS2 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

PACS2 Antibody - Images



Immunohistochemistry of NogoA in mouse brain tissue with NogoA Antibodyat 5 µg/mL.

PACS2 Antibody - Background

PACS2 (phosphofurin acidic cluster sorting protein-2), PACS1L, is an 889 amino acid protein that localizes to both the mitochondrion and the lumen of the endoplasmic reticulum (ER) and belongs to the PACS family (1,2). It is expressed in a broad range of tissues with highest expression in skeletal muscle, brain, heart, testis and pancreas (2,). PACS2 interacts with Polycystin-2 and BID and functions as a sorting protein that regulates mitochondria-ER communication and is thought to be involved in ion channel trafficking, specifically direct cluster-containing ion channels to distinct subcellular compartments (3-5).

PACS2 Antibody - References

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.
Brasacchio D, Noori T, House C, et al. A functional genomics screen identifies PCAF and ADA3 as

regulators of human granzyme B-mediated apoptosis and Bid cleavage. Cell Death Differ. 2014; 21:748-60.
Werneburg NW, Bronk SF, Guicciardi ME, et al. Tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) protein-induced lysosomal translocation of proapoptotic effectors is mediated by phosphofurin acidic cluster sorting protein-2 (PACS-2). J. Biol. Chem. 2012; 287:24427-37.
You H and Thomas G. A homeostatic switch in PACS-2 links membrane traffic to TRAIL-induced apoptosis. Cell Cycle 2009; 8:2679-80.