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PRKCDBP Antibody

Catalog # ASC11630

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q969G5
Other Accession	NP_659477, 47132587
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	27701
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PRKCDBP antibody can be used for detection of PRKCDBP by Western blot at 1 - 2 □g/mL.

Additional Information

Gene ID	112464
Other Names	Protein kinase C delta-binding protein, Cavin-3, Serum deprivation response factor-related gene product that binds to C-kinase, hSRBC, PRKCDBP, SRBC
Target/Specificity	PRKCDBP; It is predicted to not cross-react with other members of the cavin family.
Reconstitution & Storage	PRKCDBP antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	PRKCDBP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CAVIN3 (HGNC:9400)
Synonyms	PRKCDBP, SRBC
Function	Regulates the traffic and/or budding of caveolae (PubMed: 19262564). Plays a role in caveola formation in a tissue- specific manner. Required for the formation of caveolae in smooth muscle but not in the lung and heart endothelial cells. Regulates the equilibrium between cell surface-associated and cell surface- dissociated caveolae by promoting the rapid release of caveolae from the cell surface. Plays a role in the regulation of the circadian clock. Modulates the period length and phase of circadian gene expression and also regulates expression and interaction of the core clock components PER1/2 and CRY1/2 (By similarity).

Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q91VJ2}. Membrane, caveola. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q91VJ2}. Note=Localizes in the caveolae in a caveolin-dependent manner.
Tissue Location	Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Strongly expressed in mammary and epithelial cells.

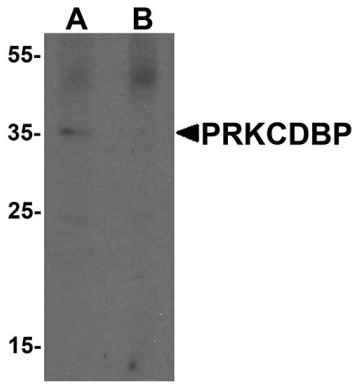
Background

PRKCDBP Antibody: The protein kinase C delta (PKC-δ) binding protein (PRKCDBP), also known as cavin-3, is a member of the cavin family of proteins that are involved in caveolin formation and regulation. PRKCDBP was initially identified in a screen of cultured cell lines for proteins that were strongly induced by serum starvation. Studies indicate that PRKCDBP binds not only to PKC-δ but also to caveolin-1 and helps regulate caveolin traffic and function. Similar to other members of the cavin family, the expression of PRKCDBP was found to be down-regulated in various cancer cell lines, suggesting a possible tumor suppressor function of PRKCDBP.

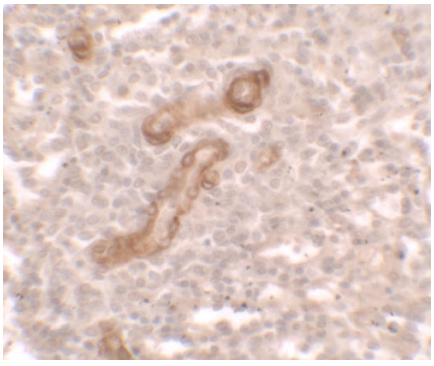
References

Briand N, Dugail I, and Le Lay S. Cavin proteins: New players in the caveolae field. Biochimie 2011; 93:71-7.
Izumi Y, Hirai S, Tamai Y, et al. A protein kinase Cdelta-binding protein SRBC whose expression is induced by serum starvation. J. Biol. Chem. 1997; 272:7381-9.
McMahon K, Zajicek H, Li W, et al. SRBC/cavin-3 is a caveolin adapter protein that regulates caveolae function. EMBO J. 2009; 28:1001-15.
Bai L, Deng X, Li Q, et al. Down-regulation of the cavin family proteins in breast cancer. J. Cell Biochem. 2012; 113:322-8.

Images

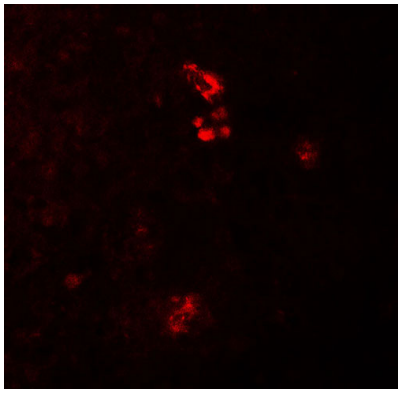


Western blot analysis of PRKCDBP in A20 cell lysate with PRKCDBP antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of PRKCDBP in human spleen tissue with PRKCDBP antibody at 2.5 µg/ml.

Immunofluorescence of PRKCDBP in human spleen tissue with PRKCDBP antibody at 20 µg/ml.



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