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SDPR Antibody

Catalog # ASC11628

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O95810
Other Accession	NP_004648, 4759082
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	47173
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SDPR antibody can be used for detection of SDPR by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	8436
Other Names	Serum deprivation-response protein, Cavin-2, PS-p68, Phosphatidylserine-binding protein, SDPR {ECO:0000312|EMBL:AAD17795.1}
Target/Specificity	SDPR; It is predicted to not cross-react with other members of the cavin family.
Reconstitution & Storage	SDPR antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	SDPR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CAVIN2 (HGNC:10690)
Function	Plays an important role in caveolar biogenesis and morphology. Regulates caveolae morphology by inducing membrane curvature within caveolae (PubMed:19525939). Plays a role in caveola formation in a tissue-specific manner. Required for the formation of caveolae in the lung and fat endothelia but not in the heart endothelia. Negatively regulates the size or stability of CAVIN complexes in the lung endothelial cells. May play a role in targeting PRKCA to caveolae (By similarity).
Cellular Location	Cytoplasm, cytosol. Membrane, caveola Note=Localizes in the caveolae in a caveolin-dependent manner

Tissue Location	Highly expressed in heart and lung, and expressed at lower levels in brain, kidney, liver, pancreas, placenta, and skeletal muscle.

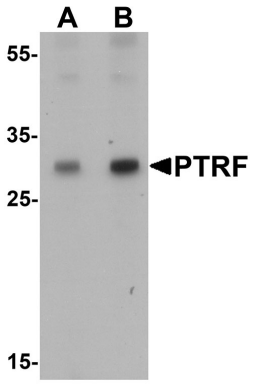
Background

SDPR Antibody: The serum deprivation-response protein (SDPR) is a calcium-independent phospholipid-binding protein whose expression is increased in serum-starved cells. SDPR is a substrate for protein kinase C (PKC) phosphorylation and recruits the polymerase I and transcript release factor (PTRF) to caveolae. Removal of this protein causes caveolae loss and its over-expression results in caveolae deformation and membrane tubulation. Both SDPR and PTRF, as well as the other member of the cavin family PRKCDBP were down regulated in breast cancer cell lines and breast tumor tissue, suggesting that expression of the cavin family proteins could be a useful prognostic indicator of breast cancer progression.

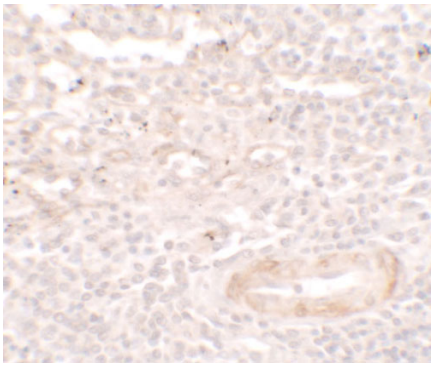
References

Gustincich S, Vatta P, Goruppi S, et al. The human serum deprivation response gene (SDPR) maps to 2q32-q33 and codes for a phosphatidylserine-binding protein. Genomics 1999; 57:120-9.
Hansen CG, Bright NA, Howard G, et al. SDPR induces membrane curvature and functions in the formation of caveolae. Nat. Cell Biol. 2009; 11:807-14.
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

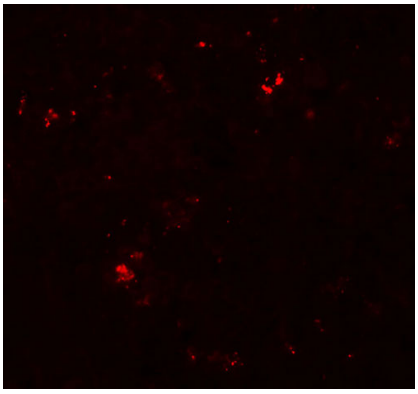


Western blot analysis of SDPR in HeLa cell lysate with SDPR antibody at (A) 1 and (B) 2 µg/mL



Immunohistochemistry of SDPR in spleen tissue with SDPR antibody at 5 µg/ml.

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



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