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PRR5 Antibody

Catalog # ASC11316

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P85299
Other Accession	NP_851850, 31317218
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	42753
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PRR5 antibody can be used for detection of PRR5 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	55615
Other Names	Proline-rich protein 5, Protein observed with Rictor-1, Protor-1, PRR5, PROTOR1
Target/Specificity	PRR5; PRR5 antibody is predicted to not cross-react with other Protor protein family members.
Reconstitution & Storage	PRR5 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	PRR5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRR5
Synonyms	PROTOR1
Function	Associated subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals (PubMed:17461779, PubMed:17599906, PubMed:29424687). mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive (PubMed:17461779, PubMed:17599906, PubMed:29424687). mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one

	or more Rho-type guanine nucleotide exchange factors (PubMed:17461779, PubMed:17599906, PubMed:29424687). PRR5 plays an important role in regulation of PDGFRB expression and in modulation of platelet-derived growth factor signaling (PubMed:17599906). May act as a tumor suppressor in breast cancer (PubMed:15718101).
Tissue Location	Most abundant in kidney and liver. Also highly expressed in brain, spleen, testis and placenta. Overexpressed in several colorectal tumors.

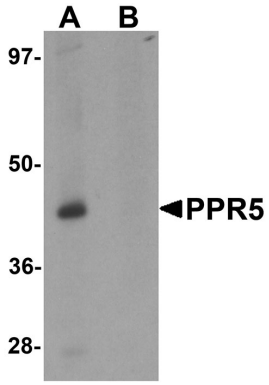
Background

PRR5 Antibody: Proline-rich protein 5 (PRR5), also known as Protor-1, is a 388 amino acid protein in Protor family, is thought to act as a tumor suppressor in breast and colorectal tumorigenesis. PRR5 is widely expressed and possesses two RICTOR interaction sites and a C-terminal Proline rich region. It promotes Rapamycin complex 2 (mTORC2) activity. There are four isoforms of PRR5 that are produced as a result of alternative splicing events and these isoforms play an important role in the modulation of platelet-derived growth factor signaling and in the regulation of PDGFR-beta expression.

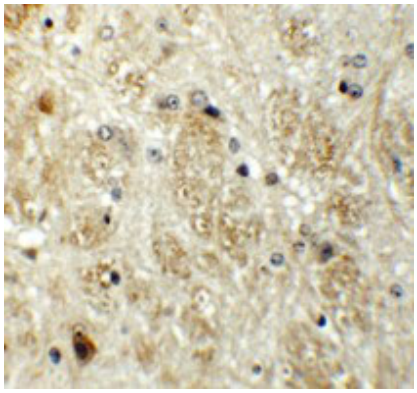
References

Johnstone CN, Castellvi-Bel S, Chang LM, et al. PRR5 encodes a conserved proline-rich protein predominant in kidney: analysis of genomic organization, expression, and mutation status in breast and colorectal carcinomas. Genomics 2005; 85:338-51.
Pearce LR, Huang X, Boudeau J, et al. Identification of Protor as a novel Rictor-binding component of mTOR complex-2. Biochem. J. 2007; 405:513-22.
Woo SY, Kim DH, Jun CB, et al. PRR5, a novel component of mTOR complex 2, regulates platelet-derived growth factor receptor expression and signaling. J. Biol. Chem. 2007; 282:25604-12.

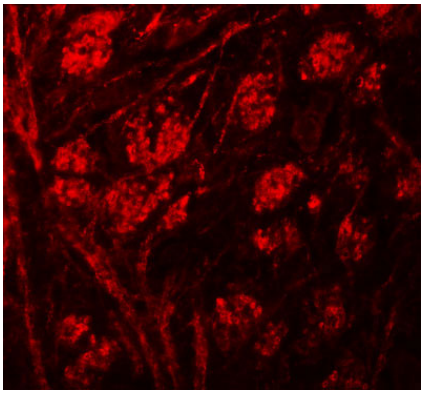
Images



Western blot analysis of PRR5 in SK-N-SH cell lysate with PRR5 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide



Immunohistochemistry of PPR5 in mouse brain tissue with PPR5 antibody at 5 µg/mL.



Immunofluorescence of PPR5 in mouse brain tissue with PPR5 antibody at 20 µg/mL.