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PRR5 Antibody
Catalog # ASC11316

Specification

PRR5 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P85299
Other Accession	NP_851850, 31317218
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**PRR5 antibody can be used for detection of PRR5 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

PRR5 Antibody - Additional Information

Gene ID **55615**

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.

PRR5 Antibody - Protein Information

Name PRR5

Synonyms PROTOR1

Function
Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. 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. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. PRR5 plays an important role in regulation of PDGFRB expression and in modulation of

platelet-derived growth factor signaling. May act as a tumor suppressor in breast cancer.

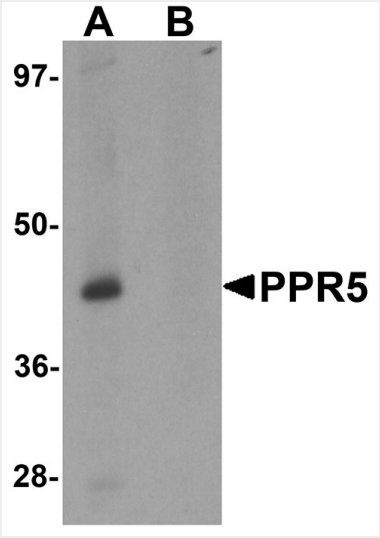
Tissue Location
Most abundant in kidney and liver. Also highly expressed in brain, spleen, testis and placenta. Overexpressed in several colorectal tumors.

PRR5 Antibody - Protocols

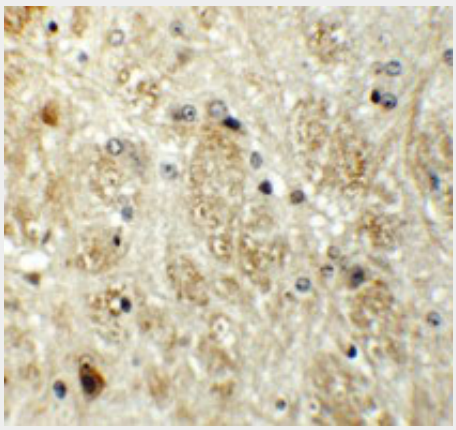
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PRR5 Antibody - 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



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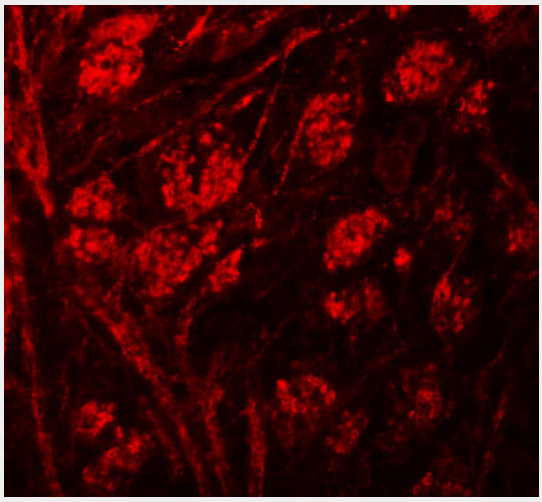
Immunohistochemistry of PPR5 in mouse brain tissue with PPR5 antibody at 5 µg/mL.



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

PRR5 Antibody - 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.

PRR5 Antibody - 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.