

Technical Data Sheet

Purified Mouse Anti-PP5

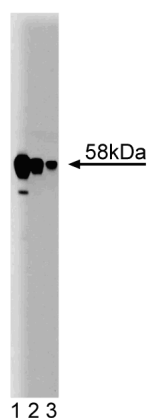
Product Information

Material Number:	611021
Alternate Name:	PPT
Size:	150 µg
Concentration:	250 µg/ml
Clone:	3/PP5
Immunogen:	Rat PP5 aa. 36-238
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human, Dog
Target MW:	58 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

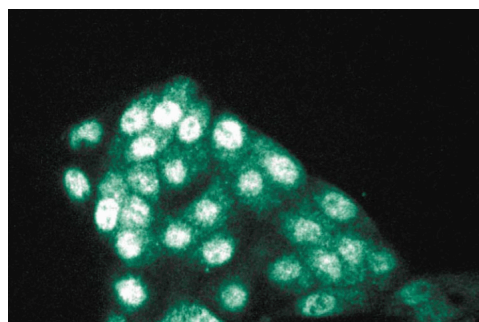
Description

Phosphorylation and dephosphorylation on serine and threonine residues is critical for signal transduction and the regulation of numerous cellular functions. Phosphorylation levels are modulated by protein kinases and phosphatases. The Ser/Thr phosphatase PP5 (also known as PPT) is a model protein of the fourth subfamily of the PPP-family of phosphatases which includes PP1, PP2A, and PP2B. PP5 is primarily located in the nucleus, demonstrates widespread tissue distribution, and is highly conserved among species. It consists of a C-terminal catalytic domain and an N-terminal TPR (tetratricopeptide repeat) domain which is involved in protein-protein interactions. The TPRs of PP5 mediate protein phosphatase activity. TPRs mediate the interaction of PP5 with various proteins including the hsp90-glucocorticoid receptor complex and the kinase domain of ANP-guanylate cyclase receptor. PP5 is thought to be important in cell growth. For example, it functions upstream of p53 to regulate p21/WAF1/Cip1-mediated G1 growth arrest. Thus, PP5 is a nuclear protein phosphatase that is involved in signaling pathways of cell growth and arrest.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of PP5 on a rat cerebrum lysate.
Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-PP5 antibody.



Immunofluorescence staining of MDCK cells (Canine kidney; ATCC CCL-34).

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Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Becker W, Kentrup H, Klumpp S, Schultz JE, Joost HG. Molecular cloning of a protein serine/threonine phosphatase containing a putative regulatory tetratricopeptide repeat domain. *J Biol Chem.* 1994; 269(36):22586-22592.(Biology)

Chen MX, McPartlin AE, Brown L, Chen YH, Barker HM, Cohen PT. A novel human protein serine/threonine phosphatase, which possesses four tetratricopeptide repeat motifs and localizes to the nucleus. *EMBO J.* 1994; 13(18):4278-4290.(Biology)

Das AK, Cohen PW, Barford D. The structure of the tetratricopeptide repeats of protein phosphatase 5: implications for TPR-mediated protein-protein interactions. *EMBO J.* 1998; 17(5):1192-1199.(Biology)

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Zuo Z, Dean NM, Honkanen RE. Serine/threonine protein phosphatase type 5 acts upstream of p53 to regulate the induction of p21(WAF1/Cip1) and mediate growth arrest. *J Biol Chem.* 1998; 273(20):12250-12258.(Biology)