Technical Data Sheet

Purified Mouse Anti-PIN

Product Information

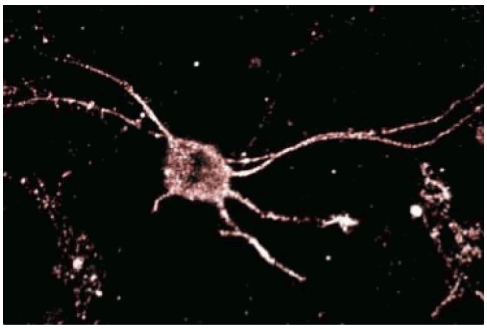
Material Number:	**610726**
Alternate Name:	Protein Inhibitor of nNOS
Size:	50 µg
Concentration:	250 µg/ml
Clone:	4/PIN
Immunogen:	Rat PIN aa. 1-89
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Human
Target MW:	10 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

PIN (protein inhibitor of nNOS) is a small protein of 89 amino acids initially described as a light chain subunit of dynein and as an inhibitor of the neuronal nitric oxide synthase isoform (nNOS). In vitro, PIN has been reported to bind to a unique nNOS domain encompassing amino acids 163-245. PIN inhibits nNOS activity and blocks the formation of the active nNOS dimer. Although ubiquitously expressed, PIN levels are reportedly highest in brain and testis. Immunolocalization studies in *Drosophila melanogaster* detected a cytoplasmic distribution of PIN. Partial-loss-of-function of PIN resulted in morphologic and developmental changes in the bristles, wings, and female sterility of *D. melanogaster*. Deletion of PIN resulted in lethality with the characteristic morphology of apoptotic cells.

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 PIN on a rat cerebrum lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti- PIN antibody.*



Immunofluorescence staining of rat neurons.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended

Suggested Companion Products

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

Dick T, Ray K, Salz HK, Chia W. Cytoplasmic dynein (ddlc1) mutations cause morphogenetic defects and apoptotic cell death in Drosophila melanogaster. *Mol Cell Biol.* 1996; 16(5):1966-1977.(Biology)

Jaffrey SR, Snyder SH. PIN: an associated protein inhibitor of neuronal nitric oxide synthase. *Science.* 1996; 274(5288):774-776.(Biology)