Technical Data Sheet

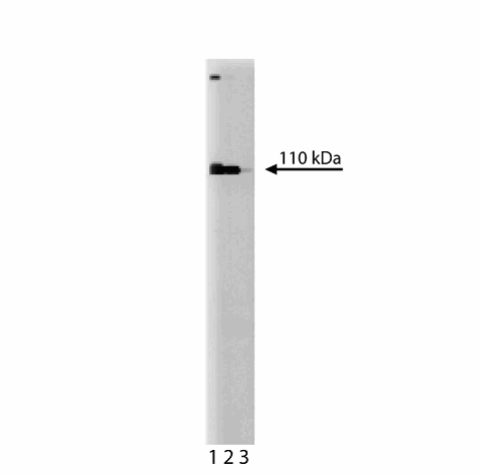
Purified Mouse Anti-PNUTS

Product Information

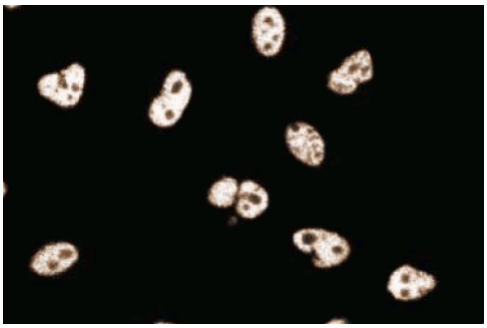
Material Number:	**611060**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	47/PNUTS
Immunogen:	Rat PNUTS aa. 605-716
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Human, Mouse
Target MW:	110 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Many aspects of cellular physiology are influenced by the serine/threonine protein phosphatase1 (PP1). It is a highly conserved eukaryotic protein that reverses the action of protein kinases. PP1 is key to such processes as cell division, neuronal metabolism, and protein synthesis. It consists of a catalytic subunit, with a broad substrate specificity, whose action is directed by its association with a family of regulatory proteins including inhibitor-1, inhibitor-2, and NIPP-1. In response to extracellular stimuli, these proteins interact with PP1 and inhibit its catalytic activity. Other regulatory proteins are referred to as targeting subunits because they direct PP1 to specific subcellular locations and modulate its activity. In the cell nucleus, PP1 has been implicated in a variety of processes. Nuclear PP1 exists in high MW complexes with other proteins including NIPP-1. PNUTS (**p**hosphatase 1 **nu**clear **t**argeting **s**ubunit) is a ubiquitously expressed nuclear protein that forms a stable complex with PP1 and is thought to modulate its catalytic activity. Thus, PNUTS is a specific regulatory protein that directs the nuclear function of PP1.



Western blot analysis of PNUTS on rat brain lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of PNUTS.*



Human Endothelial

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

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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

Allen PB, Kwon YG, Nairn AC, Greengard P. Isolation and characterization of PNUTS, a putative protein phosphatase 1 nuclear targeting subunit. *J Biol Chem.* 1998; 273(7):4089-4095.(Biology)