Technical Data Sheet

Purified Mouse anti-α-Synuclein (pY125)

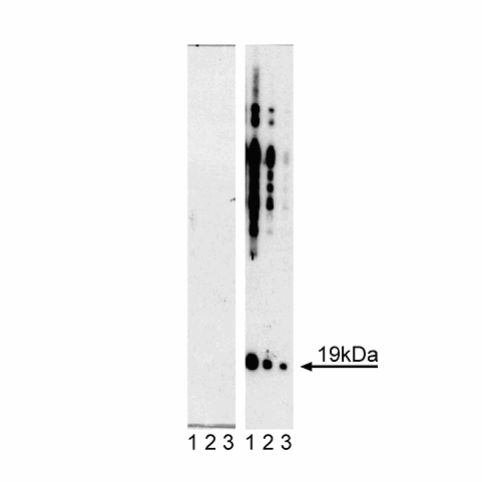
Product Information

Material Number:	**558246**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	I57-628
Immunogen:	Phosphorylated peptide corresponding to the region including the Tyrosine 125 residue of α-Synuclein
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Target MW:	19 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 140-amino-acid α-Synuclein protein is identical to the non-amyloid-β component precursor (NACP), a presynaptic protein involved in amyloidogenesis in Alzheimer's disease (AD). This protein is expressed in brain, primarily in presynaptic nerve terminals. Although the exact function of the Synucleins has not been determined, they have been linked to the prominent neurodegenerative disorders AD and Parkinson's disease. The Tyrosine 125 (Y125) residue of α-Synuclein plays an important role in stress-induced dimerization of the protein and is phosphorylated by Pyk/RAFTK via the Src-family kinases Fyn and c-Src.

The I57-628 antibody recognizes α-Synuclein phosphorylated at Y125.



Western blot analysis of α-Synuclein (pY125). *Lysates from control (left panel) and pervanadate-treated (right panel) HEK 293 cells were probed with mAb I57-628 at concentrations of 0.002, 0.001, and 0.0005 µg/ml (Lanes 1, 2, and 3, respectively). α-Synuclein (pY125) is identified as a strong band of 19 kDa in the pervanadate-treated cells.*

Preparation and Storage

Store undiluted at 4°C.

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

Application Notes

Application

Western blot	Routinely Tested

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
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

BD Biosciences

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877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Ellis CE, Schwartzberg PL, Grider TL, Fink DW, Nussbaum RL. α-Synuclein is phosphorylated by members of the Src family of protein-tyrosine kinases. *J Biol Chem.* 2001; 276(6):3879-3884.(Biology)

Forman MS, Trojanowski JQ, Lee VM-Y. Neurodegenerative diseases: a decade of discoveries paves the way for therapeutic breakthroughs. *Nat Med.* 2004; 10(10):1055-1063.(Biology)

Nakamura T, Yamashita H, Nagano Y, et al. Activation of Pyk2/RAFTK induces tyrosine phosphorylation of α-synuclein via Src-family kinases. *FEBS Lett.* 2002; 521(1 - 3):190-194.(Biology)

Nakamura T, Yamashita H, Takahashi T, Nakamura S. Activated Fyn phosphorylates alpha-synuclein at tyrosine residue 125. *Biochem Biophys Res Commun.* 2001; 280(4):1085-1092.(Biology)

Takahashi T, Yamashita H, Nakamura T, Nagano Y, Nakamura S. Tyrosine 125 of alpha-synuclein plays a critical role for dimerization following nitrative stress. *Brain Res.* 2002; 938(1 - 2):73-80.(Biology)