

#23706 Store at -20°C

Phospho- α -Synuclein (Ser129) (D1R1R) Rabbit mAb



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Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-F	H M R	Endogenous	18	Rabbit IgG	#P37840	6622

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:50
1:400 - 1:1600

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier-free (BSA and azide free) version of this product see product #87281.

Specificity / Sensitivity

Phospho- α -Synuclein (Ser129) (D1R1R) Rabbit mAb recognizes endogenous levels of α -Synuclein protein only when phosphorylated at Ser129. Specificity of nuclear staining is unclear but consistent with previous publications (4).

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser129 of human α -Synuclein protein.

Background

α -Synuclein is a protein of 140-amino acids expressed abundantly in the brain. α -Synuclein is also the main component of pathogenic Lewy bodies and Lewy neurites. Research studies have shown that mutations of the α -Synuclein gene are linked to Parkinson's disease (1).

Various research studies have shown that phosphorylation of α -Synuclein at Ser129 is a highly toxic event causing degeneration of dopaminergic neurons associated with Parkinson's disease. This is proposed to occur through increased misfolding, aggregation, and accumulation of α -Synuclein phosphorylated at this site (2). GSK-3 β is one of several kinases that has been reported to phosphorylate α -Synuclein at Ser129 (3).

Background References

- Goldberg, M.S. and Lansbury Jr., P.T. (2000) *Nat. Cell Biol.* 2, 115-119.
- Oueslati, A. et al. (2010) *Prog Brain Res* 183, 115-45.
- Credle, J.J. et al. (2015) *Cell Death Differ* 22, 838-51.
- Yu, S. et al. (2007) *Neuroscience* 145, 539-55.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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