

Store at  
-20C  
#29087**PhosphoPlus®  $\alpha$ -Synuclein (Ser129)  
Antibody Duet**
**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

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**For Research Use Only. Not for Use in Diagnostic Procedures.**
**UniProt ID:** #P37840, #O55042  
**Entrez-Gene Id:** 6622, 20617

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho- $\alpha$ -Synuclein (Ser129) (D1R1R) Rabbit mAb	23706	100 $\mu$ l	18 kDa	Rabbit IgG
$\alpha$ -Synuclein (D37A6) Rabbit mAb	4179	100 $\mu$ l	18 kDa	Rabbit IgG

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.**Description**

PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

**Background**

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

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

**Background References**

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

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