

Phospho-GSK-3 α (Ser21) Blocking Peptide

✓ 100 μ g



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rev. 06/12/17

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Entrez-Gene ID #2931

UniProt ID #P49840

Description: This peptide is used to block Phospho-GSK-3 α (Ser21) (36E9) Rabbit mAb #9316 reactivity.

Background: Glycogen synthase kinase-3 (GSK-3) was initially identified as an enzyme that regulates glycogen synthesis in response to insulin (1). GSK-3 is a ubiquitously expressed serine/threonine protein kinase that phosphorylates and inactivates glycogen synthase. GSK-3 is a critical downstream element of the PI3K/Akt cell survival pathway whose activity can be inhibited by Akt-mediated phosphorylation at Ser21 of GSK-3 α and Ser9 of GSK-3 β (2,3). GSK-3 has been implicated in the regulation of cell fate in *Dictyostelium* and is a component of the Wnt signaling pathway required for *Drosophila*, *Xenopus*, and mammalian development (4). GSK-3 has been shown to regulate cyclin D1 proteolysis and subcellular localization (5).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks Phospho-GSK-3 α (Ser21) (36E9) Rabbit mAb #9316 by peptide dot blot.

Directions for Use: Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols. Recommended antibody dilutions can be found on the product data sheet.

Background References:

- (1) Welsh, G.I. et al. (1996) *Trends Cell. Biol.* 6, 274-279.
- (2) Srivastava, A.K. and Pandey, S.K. (1998) *Mol. Cell. Biochem.* 182, 135-141.
- (3) Cross, D.A. et al. (1995) *Nature* 378, 785-789.
- (4) Nusse, R. (1997) *Cell* 89, 321-323.
- (5) Diehl, J.A. et al. (1998) *Genes Dev.* 12, 3499-3511.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA, 5% glycerol, and 1% DMSO. Store at -20°C.

For application specific protocols please see the web page for this product at www.cellsignal.com.

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