

#14026 Store at 4°C

Phospho-GSK-3 β (Ser9) (D85E12) XP[®] Rabbit mAb (Alexa Fluor[®] 488 Conjugate)

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Entrez-Gene ID #2932
UniProt ID #P49841

New 05/14

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
F
Endogenous

Species Cross-Reactivity*
H, M, R, Hm

Isotype
Rabbit IgG

Description: This Cell Signaling Technology antibody is conjugated to Alexa Fluor[®] 488 fluorescent dye and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-GSK-3 β (Ser9) (D85E12) XP[®] Rabbit mAb #5558.

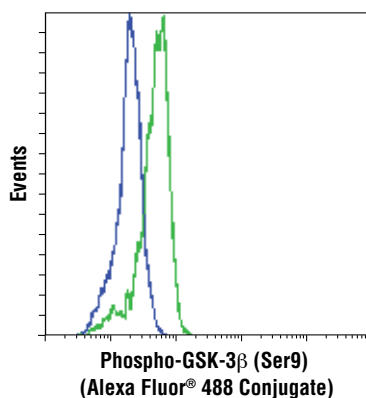
Background: Glycogen synthase kinase-3 (GSK-3) was initially identified as an enzyme that regulates glycogen synthesis in response to insulin (1). GSK-3 is a ubiquitously expressed serine/threonine protein kinase that phosphorylates and inactivates glycogen synthase. GSK-3 is a critical downstream element 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).

Specificity/Sensitivity: Phospho-GSK-3 β (Ser9) (D85E12) XP[®] Rabbit mAb (Alexa Fluor[®] 488 Conjugate) detects endogenous levels of GSK-3 β only when phosphorylated at Ser9.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser9 of human GSK-3 β .

Background References:

- (1) Welsh, G.I. et al. (1996) *Trends Cell Biol* 6, 274-9.
- (2) Srivastava, A.K. and Pandey, S.K. (1998) *Mol Cell Biochem* 182, 135-41.
- (3) Cross, D.A. et al. (1995) *Nature* 378, 785-9.
- (4) Nusse, R. (1997) *Cell* 89, 321-3.
- (5) Diehl, J.A. et al. (1998) *Genes Dev* 12, 3499-511.



Flow cytometric analysis of PC-3 cells, untreated (green) or treated with LY294002 #9901 and Wortmannin #9951 (blue), using Phospho-GSK-3 β (Ser9) (D85E12) XP[®] Rabbit mAb (Alexa Fluor[®] 488 Conjugate).

Storage: Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

*Species cross-reactivity is determined by western blot using the unconjugated antibody.

Recommended Antibody Dilutions:

Flow Cytometry 1:50

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

Please visit www.cellsignal.com/companion for a complete listing of recommended companion products.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected *Species enclosed in parentheses are predicted to react based on 100% homology.