

#14332 Store at +4°C

# Phospho-GSK-3 $\beta$ (Ser9) (D85E12) XP<sup>®</sup> Rabbit mAb (Alexa Fluor<sup>®</sup> 647 Conjugate)



**Cell Signaling**  
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| <b>Applications:</b><br>FC-FP | <b>Reactivity:</b><br>H M R Hm | <b>Sensitivity:</b><br>Endogenous | <b>Source/Isotype:</b><br>Rabbit IgG | <b>UniProt ID:</b><br>#P49841 | <b>Entrez-Gene Id:</b><br>2932 |
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| <b>Product Usage Information</b> | <b>Application</b><br>Flow Cytometry (Fixed/Permeabilized)  | <b>Dilution</b><br>1:50 |
| <b>Storage</b>                   | 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.  |                         |
| <b>Specificity / Sensitivity</b> | Phospho-GSK-3 $\beta$ (Ser9) (D85E12) XP <sup>®</sup> Rabbit mAb (Alexa Fluor <sup>®</sup> 647 Conjugate) detects endogenous levels of GSK-3 $\beta$ only when phosphorylated at Ser9. This antibody reacts with denatured components of bovine serum, including BSA.   |                         |
| <b>Source / Purification</b>     | Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser9 of human GSK-3 $\beta$ .   |                         |
| <b>Product Description</b>       | This Cell Signaling Technology antibody is conjugated to Alexa Fluor <sup>®</sup> 647 fluorescent dye and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-GSK-3 $\beta$ (Ser9) (D85E12) XP <sup>®</sup> Rabbit mAb #5558.  |                         |
| <b>Background</b>                | 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 $\alpha$ and Ser9 of GSK-3 $\beta$ (2,3). GSK-3 has been implicated in the regulation of cell fate in <i>Dictyostelium</i> and is a component of the Wnt signaling pathway required for <i>Drosophila</i> , <i>Xenopus</i> , and mammalian development (4). GSK-3 has been shown to regulate cyclin D1 proteolysis and subcellular localization (5). |                         |
| <b>Background References</b>     | <ol style="list-style-type: none"> <li>1. Welsh, G.I. et al. (1996) <i>Trends Cell Biol</i> 6, 274-9.</li> <li>2. Srivastava, A.K. and Pandey, S.K. (1998) <i>Mol Cell Biochem</i> 182, 135-41.</li> <li>3. Cross, D.A. et al. (1995) <i>Nature</i> 378, 785-9.</li> <li>4. Nusse, R. (1997) <i>Cell</i> 89, 321-3.</li> <li>5. Diehl, J.A. et al. (1998) <i>Genes Dev</i> 12, 3499-511.</li> </ol>   |                         |

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| <b>Species Reactivity</b>     | Species reactivity is determined by testing in at least one approved application (e.g., western blot).   |
| <b>Applications Key</b>       | <b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)   |
| <b>Cross-Reactivity Key</b>   | <b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected   |
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