

Cat. No:	MAB-94145
Conjugate:	Unconjugated
Size:	100 μ g
Clone:	D85E12
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu, Ms, Rt
Applications:	Western blotting 1:1000 Immunohistochemistry 1:100 Immunofluorescence (IF-IC) 1:200
Molecular Weight:	46 kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser9 of human GSK-3beta
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 PI3 kinase/Akt cell survival pathway whose activity can be inhibited by Akt-mediated phosphorylation at Ser21 of GSK-3a and Ser9 of GSK-3beta (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). Phospho-GSK-3beta (Ser9) (D85E12) Rabbit mAb detects endogenous levels of GSK-3beta only when phosphorylated at Ser9. This antibody reacts with denatured components of bovine serum, including BSA.
Form:	liquid
Buffer:	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.
Storage:	at 4-8 °C for short term, at -20°C for longer term.

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.

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