# GSK-3β (27C10) Rabbit mAb (Alexa Fluor® 488 Conjugate)



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<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P49841	Entrez-Gene Id: 2932	
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.			
Specificity/Sensitivity		GSK-3β (27C10) Rabbit mAb (Alexa Fluor <sup>®</sup> 488 Conjugate) detects endogenous levels of total GSK-3β protein.			
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human GSK-3β. The antibody was conjugated to Alexa Fluor <sup>®</sup> 488 under optimal conditions with an F/P ratio of 2-5.			
Description		This Cell Signaling Technology antibody was conjugated to Alexa Fluor $^{\$}$ 488 fluorescent dye and tested in-house for direct flow cytometric analysis of human cells. The unconjugated antibody #9315 reacts with human, mouse, rat and monkey GSK-3 $\beta$ . CST expects that GSK-3 $\beta$ (27C10) Rabbit mAb (Alexa Fluor $^{\$}$ 488 Conjugate) will also recognize GSK-3 $\beta$ in these species.			
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 $\alpha$ 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, Xenopus,</i> and mammalian development (4). GSK-3 has been shown to regulate cyclin D1 proteolysis and subcellular localization (5).			
Background References		1. Welsh, G.I. et al. (1996) <i>Trends Cell Biol</i> 6, 274-9. 2. Srivastava, A.K. and Pandey, S.K. (1998) <i>Mol Cell Biochem</i> 182, 135-41. 3. Cross, D.A. et al. (1995) <i>Nature</i> 378, 785-9. 4. Nusse, R. (1997) <i>Cell</i> 89, 321-3. 5. Diehl, J.A. et al. (1998) <i>Genes Dev</i> 12, 3499-511.			

# **Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### **Cross-Reactivity Key**

H: Human M: Mouse R: Rat Mk: Monkey

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