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PRODUCT DATASHEET

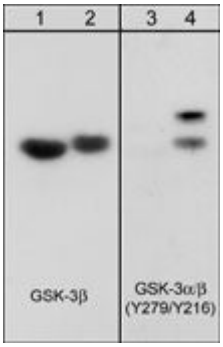
Anti-GSK-3α/β (Tyr-279/Tyr-216), Phosphospecific Antibody

Product Details

Available Variants	100 µL (SKU:GM1321)
Conjugate	Unconjugated
Isotype	IgG1
Clone	M132
Gene Name	GSK3A/B
Host Species	Mouse
Format	Protein A Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, WB
Dilution Ranges	WB: 1:1000
Species Reactivity	Human, Mouse, Rat
Immunogen	Clone M132 was generated from a phospho-GSK-3β (Tyr-216) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 216 of human GSK-3β. This peptide sequence is also found in GSK-3α (Tyr-279) and is highly conserved in GSK-3 genes in rat and mouse.
Specificity	The antibody detects 46/50 kDa* proteins corresponding to the apparent molecular mass of GSK-3β and GSK-3α on SDS-PAGE immunoblots of pervanadate treated rabbit fibroblasts, as well as treated human SKN-SH and A431 cells.
Molecular Weight	46/50
Quality Control	Western blots performed on each lot.

Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
UniProt ID	P49840 UniProt Summary: Constitutively active protein kinase that acts as a negative regulator in the hormonal control of glucose homeostasis, Wnt signaling and regulation of transcription factors and microtubules, by phosphorylating and inactivating glycogen synthase (GYS1 or GYS2), CTNNB1/beta-catenin, APC and AXIN1. Requires primed phosphorylation of the majority of its substrates. Contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis. Regulates glycogen metabolism in liver, but not in muscle. May also mediate the development of insulin resistance by regulating activation of transcription factors. In Wnt signaling, regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin. Facilitates amyloid precursor protein (APP) processing and the generation of APP-derived amyloid plaques found in Alzheimer disease. May be involved in the regulation of replication in pancreatic beta-cells. Is necessary for the establishment of neuronal polarity and axon outgrowth. Through phosphorylation of the anti-apoptotic protein MCL1, may control cell apoptosis in response to growth factors deprivation. Acts as a regulator of autophagy by mediating phosphorylation of KAT5/TIP60 under starvation conditions which activates KAT5/TIP60 acetyltransferase activity and promotes acetylation of key autophagy regulators, such as ULK1 and RUBCNL/Pacer. Negatively regulates extrinsic apoptotic signaling pathway via death domain receptors. Promotes the formation of an anti-apoptotic complex, made of DDX3X, BRIC2 and GSK3B, at death receptors, including TNFRSF10B. The anti-apoptotic function is most effective with weak apoptotic signals and can be overcome by stronger stimulation. Phosphorylates mTORC2 complex component RICTOR at 'Thr-1695' which facilitates FBXW7-mediated ubiquitination and subsequent degradation of RICTOR.
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
Post Translational Modification Type	Phosphorylated
Post Translational Modification Residue	Tyr-216
NCBI Gene ID	2931

Product Images



Western blot analysis of rabbit spleen fibroblasts serum starved for 2 hrs (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 minutes (lanes 2 & 4). The blot was probed with anti-GSK-3β (lanes 1 & 2) or anti-GSK-3α/β (Y279/Y216) (lanes 3 & 4).

Created on 20. November 2026 | All information without guarantee