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phospho-GSK3 Alpha + Beta (Tyr279+Tyr216) Recombinant Rabbit mAb

Catalog # AP96484

Product Information

Application	WB
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	47 KDa
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from human GSK-3 Beta around the phosphorylation site of Tyr216
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. GSK-3 subfamily.Contains 1 protein kinase domain.
SUBUNIT	Monomer. Interacts with ARRB2. Interacts with AXIN1 and CTNNB1/beta-catenin.
Post-translational modifications	Phosphorylated by AKT1 at Ser-21: upon insulin-mediated signaling, the activated PKB/AKT1 protein kinase phosphorylates and desactivates GSK3A, resulting in the dephosphorylation and activation of GYS1. Activated by phosphorylation at Tyr-279.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a multifunctional Ser/Thr protein kinase that is implicated in the control of several regulatory proteins including glycogen synthase, and transcription factors, such as JUN. It also plays a role in the WNT and PI3K signaling pathways, as well as regulates the production of beta-amyloid peptides associated with Alzheimer's disease. [provided by RefSeq, Oct 2011]

Additional Information

Other Names	2700086H06Rik; GSK3A_HUMAN; GSK3A; GSK-3 alpha; Serine/threonine-protein kinase GSK3A; 2.7.11.26; GSK3A_MOUSE; GSK3A_RAT; Factor A (FA); glycogen synthase kinase 3 alpha; GSK3 alpha & beta (phospho-Y279/Y216); p-GSK3 alpha & beta; phospho-GSK3 alpha & beta; p-GSK3A & p-GSK3B; GSK3 alpha & beta (phospho-Tyr279/Tyr216); 7330414F15Rik; 8430431H08Rik; GSK-3; GSK-3beta; GSK3; GSK3B_HUMAN; GSK3B; GSK-3 beta; Serine/threonine-protein kinase GSK3B; GSK3B_MOUSE
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

	is stable for at least two weeks at 2-4 °C.
Name	phospho-GSK3 Alpha + Beta (Tyr279+Tyr216) Recombinant Rabbit mAb
Function	Constitutively active protein kinase that acts as a negative regulator in the hormonal control of glucose homeostasis, Wnt signaling and regulation of transctiption 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.