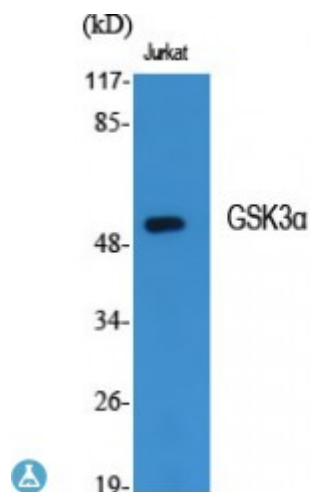


Anti-GSK alpha antibody



Description	Rabbit polyclonal to GSK3alpha.
Model	STJ93445
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, IP, WB
Immunogen	Synthesized peptide derived from human GSK3alpha around the non-phosphorylation site of S21.
Immunogen Region	10-90 aa
Gene ID	2931
Gene Symbol	GSK3A
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IP 1:200-500ELISA 1:20000
Specificity	GSK3alpha Polyclonal Antibody detects endogenous levels of GSK3alpha protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Glycogen synthase kinase-3 alpha GSK-3 alpha Serine/threonine-protein kinase GSK3A
Molecular Weight	51 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4616OMIM:606784
Alternative Names	Glycogen synthase kinase-3 alpha GSK-3 alpha Serine/threonine-protein kinase GSK3A
Function	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.
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.