

GSK3 alpha Rabbit mAb
Catalog # AP75520**Specification****GSK3 alpha Rabbit mAb - Product Information**

Application	WB, IF, IP
Primary Accession	P49840
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	50981

GSK3 alpha Rabbit mAb - Additional Information

Gene ID 2931

Other Names
GSK3A**Dilution**
WB~~1/500-1/1000
IF~~1/50-1/200
IP~~1/20**Format**
Liquid**GSK3 alpha Rabbit mAb - Protein Information**

Name 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 (PubMed: [11749387](http://www.uniprot.org/citations/11749387) target="_blank">11749387, PubMed: [17478001](http://www.uniprot.org/citations/17478001) target="_blank">17478001, PubMed: [19366350](http://www.uniprot.org/citations/19366350) target="_blank">19366350). Requires primed phosphorylation of the majority of its substrates (PubMed: [11749387](http://www.uniprot.org/citations/11749387) target="_blank">11749387, PubMed: [17478001](http://www.uniprot.org/citations/17478001) target="_blank">17478001, PubMed: [19366350](http://www.uniprot.org/citations/19366350) target="_blank">19366350). Contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis (PubMed: [11749387](http://www.uniprot.org/citations/11749387) target="_blank">11749387, PubMed: [17478001](http://www.uniprot.org/citations/17478001) target="_blank">17478001, PubMed: [19366350](http://www.uniprot.org/citations/19366350) target="_blank">19366350). Regulates glycogen metabolism in liver, but not in muscle (By similarity). May also mediate the development

of insulin resistance by regulating activation of transcription factors (PubMed:10868943, PubMed:17478001). In Wnt signaling, regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin (PubMed:17229088). Facilitates amyloid precursor protein (APP) processing and the generation of APP-derived amyloid plaques found in Alzheimer disease (PubMed:12761548). May be involved in the regulation of replication in pancreatic beta-cells (By similarity). Is necessary for the establishment of neuronal polarity and axon outgrowth (By similarity). Through phosphorylation of the anti-apoptotic protein MCL1, may control cell apoptosis in response to growth factors deprivation (By similarity). 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 (PubMed:30704899). 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 (By similarity). Phosphorylates mTORC2 complex component RICTOR at 'Thr- 1695' which facilitates FBXW7-mediated ubiquitination and subsequent degradation of RICTOR (PubMed:25897075).

GSK3 alpha Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GSK3 alpha Rabbit mAb - Images



