

GSK3 α Polyclonal Antibody
Catalog # AP70263**Specification****GSK3 α Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IP
Primary Accession	P49840
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

GSK3 α Polyclonal Antibody - Additional Information**Gene ID** 2931**Other Names**

GSK3A; Glycogen synthase kinase-3 alpha; GSK-3 alpha; Serine/threonine-protein kinase GSK3A

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunoprecipitation: 2-5 ug/mg lysate. ELISA: 1/20000. Not yet tested in other applications.

IHC-P~~N/A

IP~~N/A

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

GSK3 α Polyclonal Antibody - 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:<<http://www.uniprot.org/citations/11749387>

target="_blank">11749387, PubMed:<<http://www.uniprot.org/citations/17478001> target="_blank">17478001, PubMed:<<http://www.uniprot.org/citations/19366350> target="_blank">19366350). Requires primed phosphorylation of the majority of its substrates (PubMed:<<http://www.uniprot.org/citations/11749387>

target="_blank">11749387, PubMed:<<http://www.uniprot.org/citations/17478001> target="_blank">17478001, PubMed:<<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:<<http://www.uniprot.org/citations/11749387> target="_blank">11749387, PubMed:<<http://www.uniprot.org/citations/17478001>

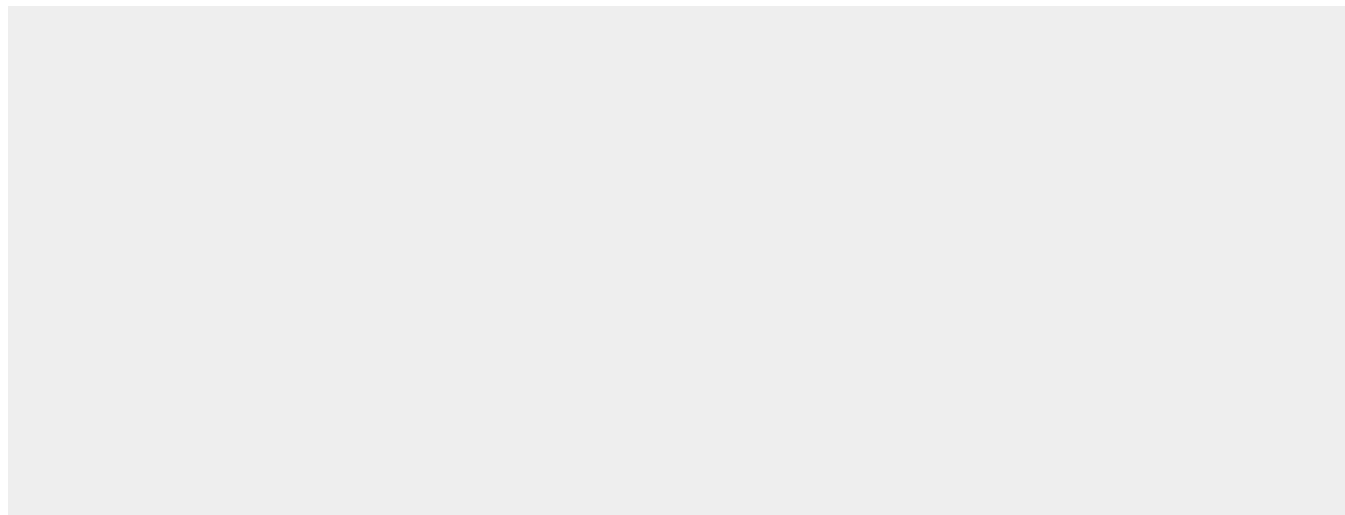
href="http://www.uniprot.org/citations/17478001" target="_blank">17478001, PubMed:19366350). Regulates glycogen metabolism in liver, but not in muscle (By similarity). May also mediate the development of insulin resistance by regulating activation of transcription factors (PubMed:10868943, PubMed:17478001). 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).

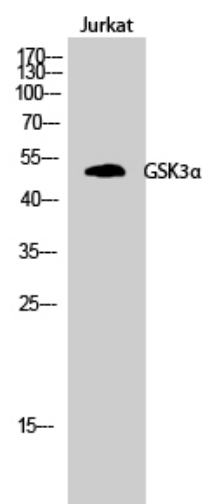
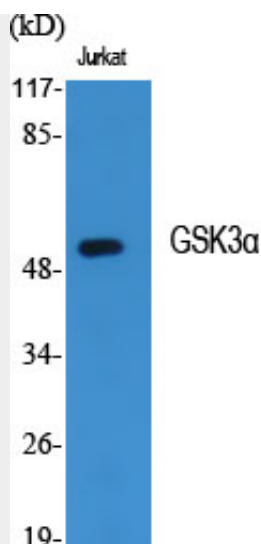
GSK3α Polyclonal Antibody - Protocols

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](#)

GSK3α Polyclonal Antibody - Images





GSK3α Polyclonal Antibody - Background

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