

GSK3 alpha Antibody
Rabbit mAb
Catalog # AP91685

Specification

GSK3 alpha Antibody - Product Information

Application	WB, IHC, ICC, IP
Primary Accession	P49840
Reactivity	Rat
Clonality	Monoclonal
Other Names	
GSK 3 alpha; GSK 3A; GSK-3 alpha; Gsk3a; GSK3alpha;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	50981 Da

GSK3 alpha Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human GSK3 alpha
Description	Implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB and the transcription factor JUN.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

GSK3 alpha 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: [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: <a

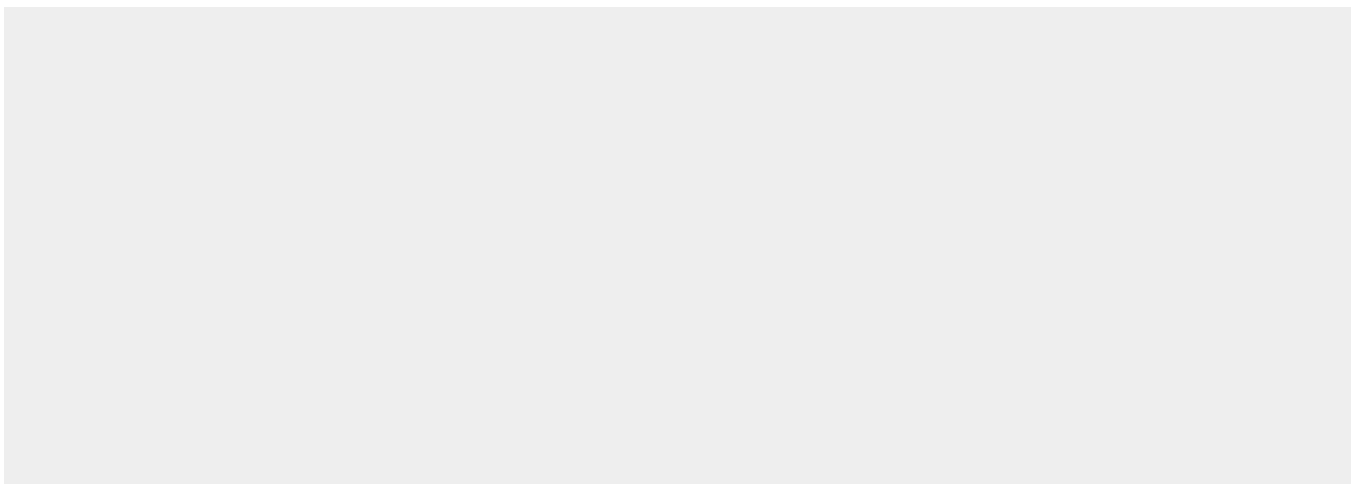
<http://www.uniprot.org/citations/11749387> target="_blank">11749387, PubMed:17478001, PubMed:19366350). Regulates glycogen metabolism in liver, but not in muscle (By similarity). May also mediate the development of insulin resistance by regulating activation of transcription factors (PubMed:10868943, 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).

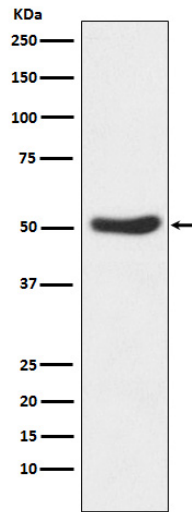
GSK3 alpha Antibody - Protocols

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](#)

GSK3 alpha Antibody - Images





Western blot analysis of GSK3 alpha expression in HeLa cell lysate.