

**GSK3 alpha Antibody**  
Rabbit mAb  
Catalog # AP91685**Specification****GSK3 alpha Antibody - Product Information**

Application	WB, IHC, ICC, IP
Primary Accession	<a href="#">P49840</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
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	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human GSK3 alpha</b>
Description	<b>Implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB and the transcription factor JUN.</b>
Storage Condition and Buffer	<b>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.</b>

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

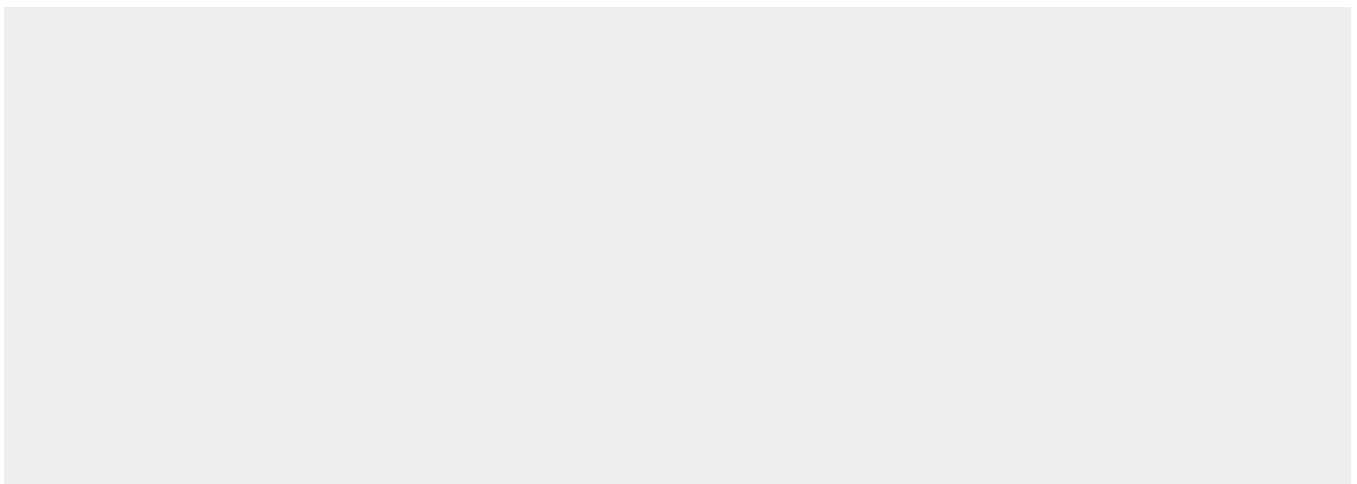
[11749387](http://www.uniprot.org/citations/11749387), PubMed: [17478001](http://www.uniprot.org/citations/17478001), PubMed: [19366350](http://www.uniprot.org/citations/19366350)). Regulates glycogen metabolism in liver, but not in muscle (By similarity). May also mediate the development of insulin resistance by regulating activation of transcription factors (PubMed: [10868943](http://www.uniprot.org/citations/10868943), PubMed: [17478001](http://www.uniprot.org/citations/17478001)). In Wnt signaling, regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin (PubMed: [17229088](http://www.uniprot.org/citations/17229088)). Facilitates amyloid precursor protein (APP) processing and the generation of APP-derived amyloid plaques found in Alzheimer disease (PubMed: [12761548](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/25897075)).

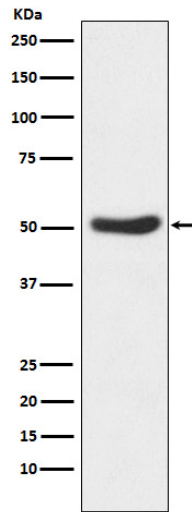
### GSK3 alpha Antibody - Protocols

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.