

**Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody**  
Rabbit mAb  
Catalog # AP90999

**Specification**

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**Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody - Product Information**

Application	WB, IHC, ICC, IP
Primary Accession	<a href="#">P49840</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
Glycogen synthase kinase-3 alpha; GSK-3 alpha; GSK3A	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	50981 Da

**Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody - Additional Information**

Dilution	WB~~1:1000 IHC~~1:100~500 ICC~~N/A IP~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Phospho-GSK3 (alpha + beta)(Y216 + Y279)
Description	GSK3A a proline-directed protein kinase of the GSK family. Implicated in the control of several regulatory proteins including glycogen synthase, Myb, and c-Jun. GSK3 and GSK3 have similar functions. GSK3 phosphorylates tau, the principal component of neurofibrillary tangles in Alzheimer disease and is required for maximal production of amyloid plaque peptides by secretase.
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.

**Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody - Protein Information**

**Name** GSK3A

**Function**

Constitutively active protein kinase that acts as a negative regulator in the hormonal control of

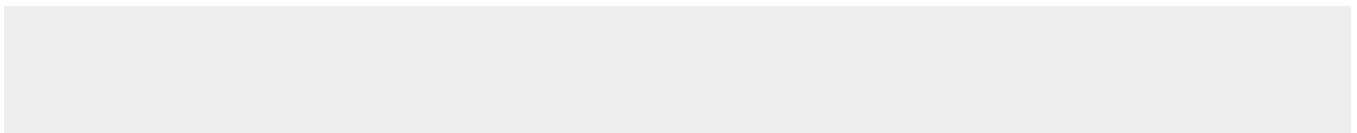
glucose homeostasis, Wnt signaling and regulation of transcription factors and microtubules, by phosphorylating and inactivating glycogen synthase (GYS1 or GYS2), CTNNB1/beta-catenin, APC and AXIN1 (PubMed: [11749387](http://www.uniprot.org/citations/11749387)), PubMed: [17478001](http://www.uniprot.org/citations/17478001)), PubMed: [19366350](http://www.uniprot.org/citations/19366350)). Requires primed phosphorylation of the majority of its substrates (PubMed: [11749387](http://www.uniprot.org/citations/11749387)), PubMed: [17478001](http://www.uniprot.org/citations/17478001)), PubMed: [19366350](http://www.uniprot.org/citations/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)), 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)).

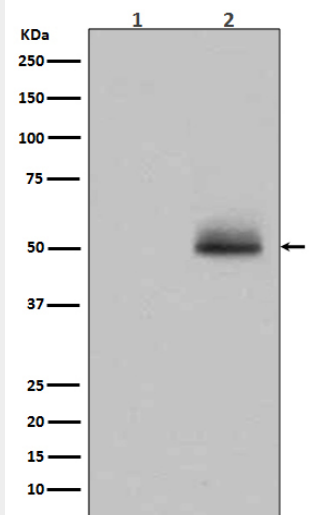
### Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody - Protocols

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](#)

### Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody - Images





Western blot analysis of GSK3 alpha/ beta phosphorylation expression in 293 cell lysate treated with AP.