

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

Specification

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

| | |
|--|------------------------|
| Application | WB, IHC, ICC, IP |
| Primary Accession | P49840 |
| Reactivity | Rat |
| Clonality | Monoclonal |
| Other Names | |
| 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

| | |
|------------------------------|--|
| 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, PubMed:<a href="http://www.uniprot.org/citations/17478001"

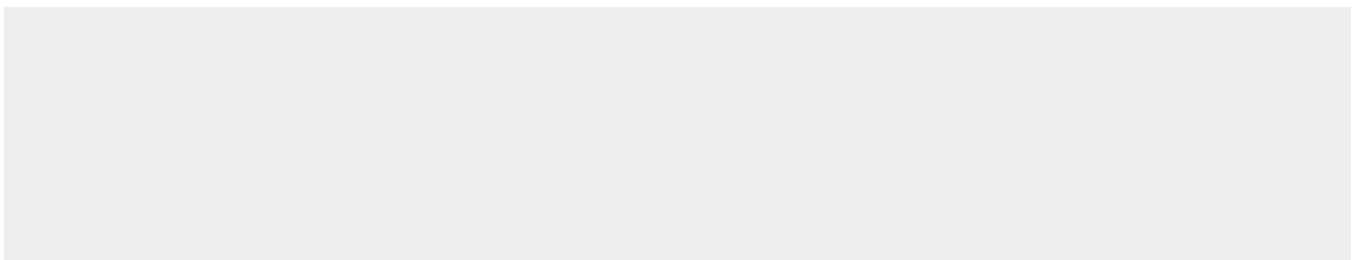
target="_blank">17478001, PubMed:19366350). Requires primed phosphorylation of the majority of its substrates (PubMed:11749387, PubMed:17478001, PubMed:19366350). Contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis (PubMed:11749387, 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).

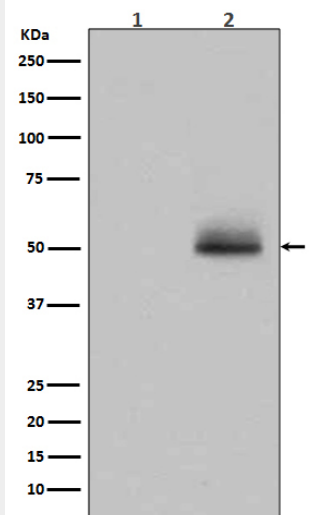
Phospho-GSK3 (alpha + beta)(Y216 + Y279) Antibody - Protocols

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.