

# GSK3 alpha Antibody

Rabbit mAb

Catalog # AP91685

## Product Information

<b>Application</b>	WB, IHC, IF, ICC, IP, IHF
<b>Primary Accession</b>	<a href="#">P49840</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	GSK 3 alpha; GSK 3A; GSK-3 alpha; Gsk3a; GSK3alpha;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	50981

## Additional Information

<b>Dilution</b>	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50
<b>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.

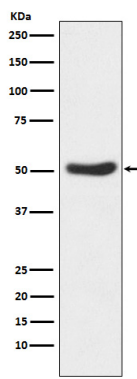
## Protein Information

<b>Name</b>	GSK3A
<b>Function</b>	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: <a href="#">11749387</a> , PubMed: <a href="#">17478001</a> , PubMed: <a href="#">19366350</a> ). Requires primed phosphorylation of the majority of its substrates (PubMed: <a href="#">11749387</a> , PubMed: <a href="#">17478001</a> , PubMed: <a href="#">19366350</a> ). Contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis (PubMed: <a href="#">11749387</a> , PubMed: <a href="#">17478001</a> , PubMed: <a href="#">19366350</a> ). 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: <a href="#">10868943</a> , PubMed: <a href="#">17478001</a> ). In Wnt signaling, regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin (PubMed: <a href="#">17229088</a> ). Facilitates amyloid precursor protein (APP) processing and the generation of APP-derived amyloid plaques found in Alzheimer disease (PubMed: <a href="#">12761548</a> ). 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](#)).

## Images

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

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