

Mouse Gsk3a Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14846b**Specification**

Mouse Gsk3a Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q2NL51](#)**Mouse Gsk3a Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 606496**Other Names**

Glycogen synthase kinase-3 alpha, GSK-3 alpha, Serine/threonine-protein kinase GSK3A, Gsk3a

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Gsk3a Antibody (C-term) Blocking Peptide - 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: [15791206](http://www.uniprot.org/citations/15791206)), PubMed: [17908561](http://www.uniprot.org/citations/17908561)). Requires primed phosphorylation of the majority of its substrates (PubMed: [22539723](http://www.uniprot.org/citations/22539723)). Contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis (PubMed: [15791206](http://www.uniprot.org/citations/15791206), PubMed: [17908561](http://www.uniprot.org/citations/17908561)). Regulates glycogen metabolism in liver, but not in muscle (PubMed: [17908561](http://www.uniprot.org/citations/17908561)). May also mediate the development of insulin resistance by regulating activation of transcription factors (By similarity). In Wnt signaling, regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin (PubMed: [15791206](http://www.uniprot.org/citations/15791206)). Facilitates amyloid precursor protein (APP) processing and the generation of APP-derived amyloid plaques found in Alzheimer disease (By similarity). 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 (PubMed:17391670). Through phosphorylation of the anti- apoptotic protein MCL1, may control cell apoptosis in response to growth factors deprivation (PubMed:16543145). Acts as a regulator of autophagy by mediating phosphorylation of KAT5/TIP60 under starvation conditions, activating KAT5/TIP60 acetyltransferase activity and promoting acetylation of key autophagy regulators, such as ULK1 and RUBCNL/Pacer (PubMed:22539723). 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).

Mouse Gsk3a Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Mouse Gsk3a Antibody (C-term) Blocking Peptide - Images

Mouse Gsk3a Antibody (C-term) Blocking Peptide - Background

Implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB and the transcription factor JUN (By similarity).

Mouse Gsk3a Antibody (C-term) Blocking Peptide - References

Ahmad, I., et al. Oncogene (2010) In press :Beurel, E., et al. Neuroscience 169(3):1063-1070(2010)Zhou, J., et al. J. Clin. Invest. 120(7):2280-2291(2010)Wang, Z., et al. Cancer Cell 17(6):597-608(2010)Spokoini, R., et al. Mol. Endocrinol. 24(6):1136-1150(2010)