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Rabbit Anti-phospho-GSK3 Beta (Tyr216) antibody

SL4079R

Product Name:	phospho-GSK3 Beta (Tyr216)
Chinese Name:	磷酸化糖原合酶激酶3β抗体
Alias:	GSK3 beta (phospho Y216); p-GSK3 beta (phospho Y216);GSK3B(Phospho-Tyr216); GSK3B(Phospho-Y216); p-GSK-3 Beta(Tyr216); p-GSK-3 beta(Y216); Glycogen synthase kinase 3 beta; GSK 3 beta; GSK 3B; GSK3B; GSK3B protein; GSK3beta isoform; GSK3 beta; Glycogen synthase kinase-3 beta; GSK-3 beta; GSK3B_HUMAN.
文献引用 PubMed :	**Specific References(1)**|SL4079R has been referenced in 1 publications. **[IF=2.97]**Li, Xu-zhao, et al. "Neuroprotective effects of extract of< i> Acanthopanax senticosus harms on SH-SY5Y cells overexpressing wild-type or A53T mutant ??-synuclein."Phytomedicine (2013). **WB;Human**. PubMed:24252343
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Sheep,Guinea Pig,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	47/51kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human GSK3 Beta around the phosphorylation site of Tyr216:VS(p-Y)IC
Lsotype:	IgG

Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein encoded by this gene is a serine-threonine kinase, belonging to the glycogen synthase kinase subfamily. It is involved in energy metabolism, neuronal cell development, and body pattern formation. Polymorphisms in this gene have been implicated in modifying risk of Parkinson disease, and studies in mice show that overexpression of this gene may be relevant to the pathogenesis of Alzheimer disease. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009] **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), EIF2B, CTNNB1/beta-catenin, APC, AXIN1, JUN, NFATC1/NFATC, MAPT/TAU and MACF1. Requires primed phosphorylation of the majority of its substrates. In skeletal muscle, contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis. May also mediate the development of insulin resistance by regulating activation of transcription factors. Regulates protein synthesis by controlling the activity of initiation factor 2B (EIF2BE/EIF2B5) in the same manner as glycogen synthase. In Wnt signaling, GSK3B forms a multimeric complex with APC, AXIN1 and CTNNB1/beta-catenin and phosphorylates the N-terminus of CTNNB1 leading to its degradation mediated by ubiquitin/proteasomes. Phosphorylates JUN at sites proximal to its DNA-binding domain, thereby reducing its affinity for DNA. Phosphorylates NFATC1/NFATC on conserved serine residues promoting NFATC1/NFATC nuclear export, shutting off NFATC1/NFATC gene regulation, and thereby opposing the action of calcineurin. Phosphorylates MAPT/TAU on 'Thr-548', decreasing significantly MAPT/TAU ability to bind and stabilize microtubules. MAPT/TAU is the principal component of neurofibrillary tangles in Alzheimer disease. Plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex. Phosphorylates MACF1, inhibiting its binding to microtubules which is critical for its role in bulge stem cell migration and skin wound repair. Probably regulates NF-kappa-B (NFKB1) at the transcriptional level and is required for the NF-kappa-B-mediated anti-apoptotic response to TNF-alpha (TNF/TNFA). Negatively regulates replication in pancreatic beta-cells, resulting in apoptosis, loss of beta-cells and diabetes. Phosphorylates MUC1 in breast cancer cells, decreasing the interaction of MUC1 with CTNNB1/beta-catenin. Is necessary for the establishment of neuronal polarity and axon outgrowth. Phosphorylates MARK2, leading to inhibit its activity. Phosphorylates SIK1 at 'Thr-182', leading to sustain its activity.

Subunit:
Monomer. Interacts with ARRB2 and DISC1. Interacts with CABYR, MMP2, MUC1, NIN and PRUNE Interacts with AXIN1; the interaction mediates hyperphosphorylation of CTNNB1 leading to its ubiquitination and destruction. Interacts with and phosphorylates SNAI1. Interacts with DNM1L (via a C-terminal domain). Found in a complex composed of MACF1, APC, AXIN1, CTNNB1 and GSK3B.

Subcellular Location:
Cytoplasm. Nucleus. Cell membrane. Note=The phosphorylated form shows localization to cytoplasm and cell membrane. The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosophorylated form to the cell membrane.

Tissue Specificity:
Expressed in testis, thymus, prostate and ovary and weakly expressed in lung, brain and kidney.

Post-translational modifications:
Phosphorylated by AKT1 and ILK1. Upon insulin-mediated signaling, the activated PKB/AKT1 protein kinase phosphorylates and desactivates GSK3B, resulting in the dephosphorylation and activation of GYS1. Activated by phosphorylation at Tyr-216.

Similarity:
Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. GSK-3 subfamily.
Contains 1 protein kinase domain.

SWISS:
P49841

Gene ID:
2932

Database links:

Entrez Gene: 2932Human

Entrez Gene: 56637Mouse

Entrez Gene: 84027Rat

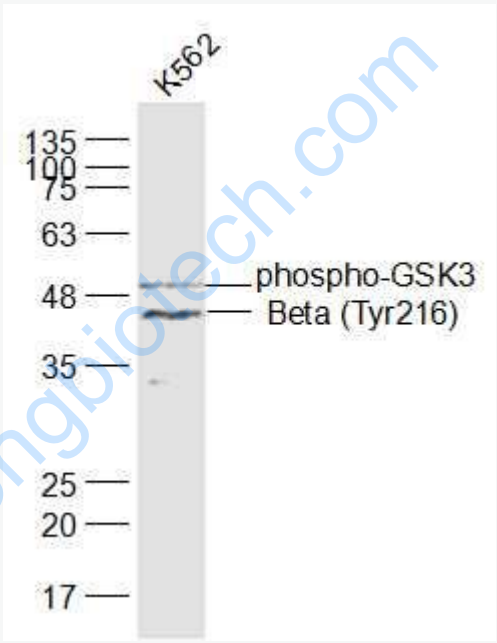
Omim: 605004Human

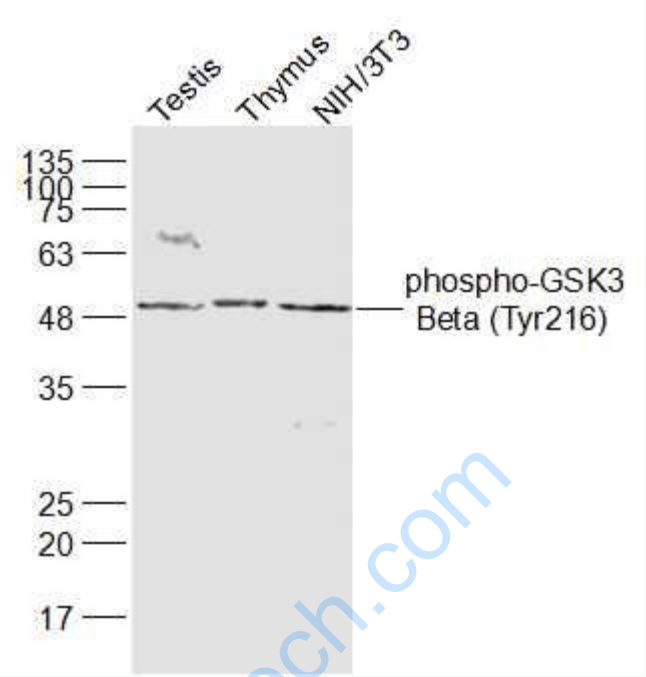
SwissProt: P49841Human

SwissProt: Q9WV60Mouse

SwissProt: P18266Rat

Unigene: 445733Human

	Unigene: 394930Mouse Unigene: 10426Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Sample: K562(Human) Cell Lysate at 30 ug Primary: Anti-phospho-GSK3 Beta (Tyr216)? (SL4079R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 47/51 kD Observed band size: 47/51 kD



Sample:

Testis (Mouse) Lysate at 40 ug

Thymus (Mouse) Lysate at 40 ug

NIH/3T3(Mouse) Cell Lysate at 30 ug

Primary: Anti-phospho-GSK3 Beta (Tyr216)? (SL4079R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 47/51 kD

Observed band size: 51 kD