

GSK3B Antibody HRP Conjugated

Catalog No: #C00015H

Package Size: #C00015H 100ul

Description

Product Name	GSK3B Antibody HRP Conjugated
Host Species	Rabbit
Clonality	Polyclonal
Isotype	IgG
Purification	Purified by Protein A.
Applications	IHC-P IHC-F ICC
Species Reactivity	Hu Ms Rt
Immunogen Description	KLH conjugated synthetic peptide aa 1-20 420 derived from human GSK3B
Conjugates	HRP
Target Name	GSK3B
Other Names	Glycogen synthase kinase-3 beta; GSK-3 beta; Serine threonine-protein kinase GSK3B; GSK3B
Concentration	1mg ml
Formulation	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Application Details

IHC-P=1:50-200 IHC-F=1:50-200 ICC=1:50-200

Background

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, DPYSL2 CRMP2, 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 (EIF2B 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).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.