



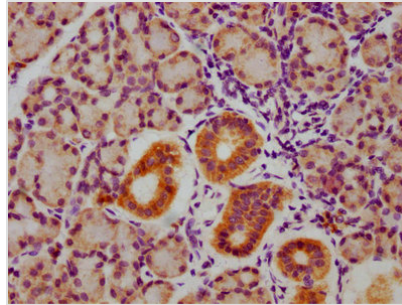
Phospho-GSK3A/GSK3B (Y216 + Y279)

Recombinant Monoclonal Antibody

Product Code	CSB-RA009962A216phHU
Abbreviation	Glycogen synthase kinase-3 alpha
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P49840
Immunogen	A synthesized peptide derived from Human Phospho-GSK3A/GSK3B (Y216 + Y279)
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	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. Requires primed phosphorylation of the majority of its substrates. Contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis. Regulates glycogen metabolism in liver, but not in muscle. May also mediate the development of insulin resistance by regulating activation of transcription factors. In Wnt signaling, regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin. Facilitates amyloid precursor protein (APP) processing and the generation of APP-derived amyloid plaques found in Alzheimer disease. May be involved in the regulation of replication in pancreatic beta-cells. Is necessary for the establishment of neuronal polarity and axon outgrowth. Through phosphorylation of the anti-apoptotic protein MCL1, may control cell apoptosis in response to growth factors deprivation.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Glycogen synthase kinase-3 alpha, GSK-3 alpha, Serine/threonine-protein kinase GSK3A, GSK3A
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience
Gene Names	GSK3A


Clone No.

4A5

Image


IHC image of CSB-RA009962A216phHU diluted at 1:100 and staining in paraffin-embedded human pancreatic tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4^oC overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

Description

Phospho-GSK3A/GSK3B (Y216 + Y279) antibody CSB-RA009962A216phHU is a recombinant monoclonal antibody belonging to rabbit IgG. Its production procedures include: the acquisition of the anti-GSK3 Beta-pY216 + GSK3 Alpha-pY279 monoclonal antibody using the synthesized peptide derived from the human phospho-GSK3A/GSK3B (Y216 + Y279) immunizes animals; the determination of DNA sequence of the monoclonal antibody; the clone of the DNA sequence into the plasmid and subsequent transfection into cell lines for expression. This phospho-GSK3A/GSK3B (Y216 + Y279) antibody underwent purification using affinity-chromatography. It has been tested in ELISA and IHC. It is reactive with the human phospho-GSK3A/GSK3B (Y216 + Y279) protein.

All eukaryotes have GSK3, which is a versatile serine/threonine kinase. GSK3 is engaged in a wide range of cellular functions, from glycogen metabolism to cell cycle regulation and proliferation, and is a crucial regulator of numerous signaling pathways, including cellular responses to Wnt, receptor tyrosine kinases, and G protein-coupled receptors. GSK3 α and GSK3 β are two GSK-3 isoforms. GSK3 kinase activity is activated by phosphorylation on tyrosine residues (GSK3 Y279 and GSK3 Y216).