



GSK3β Monoclonal Antibody

Catalog No	YP-Ab-14154
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;IHC;IF;FCM;ELISA
Gene Name	GSK3B
Protein Name	Glycogen synthase kinase-3 beta
Immunogen	Purified recombinant fragment of human GSK3β expressed in E. Coli.
Specificity	GSK3β Monoclonal Antibody detects endogenous levels of GSK3β protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	GSK3B; Glycogen synthase kinase-3 beta; GSK-3 beta; Serine/threonine-protein kinase GSK3B
Observed Band	
Cell Pathway	Cytoplasm . Nucleus . Cell membrane . The phosphorylated form shows localization to cytoplasm and cell membrane (PubMed:20937854). The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosphorylated form to the cell membrane (PubMed:20937854). .
Tissue Specificity	Expressed in testis, thymus, prostate and ovary and weakly expressed in lung, brain and kidney. Colocalizes with EIF2AK2/PKR and TAU in the Alzheimer disease (AD) brain.
Function	catalytic activity:ATP + [tau protein] = ADP + [tau protein] phosphate.,enzyme regulation:Inhibited when phosphorylated by AKT1.,function:Participates in the Wnt signaling pathway. Implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB and the transcription factor JUN. Phosphorylates JUN at sites proximal to its DNA-binding domain, thereby reducing its affinity for DNA. Phosphorylates MUC1 in breast cancer cells, and decreases the interaction of MUC1 with CTNNB1/beta-catenin.,PTM:Phosphorylated by AKT1 and ILK1.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. GSK-3 subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Monomer (By



similarity). Interacts with CABYR, MUC1, NIN and PRUNE.,tissue
specificity:Expressed in testis, thymus, prostate

Background

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],

matters needing attention

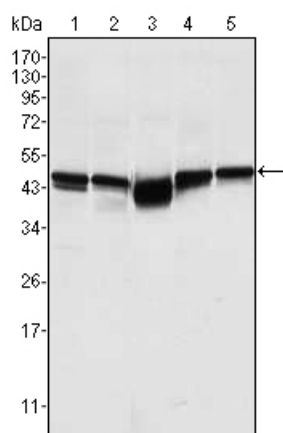
Avoid repeated freezing and thawing!

Usage suggestions

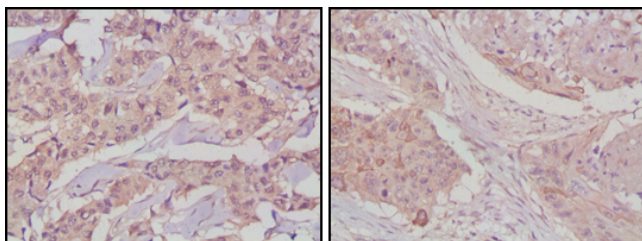
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



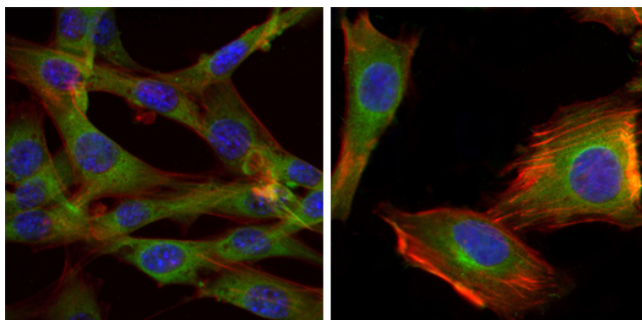
Products Images



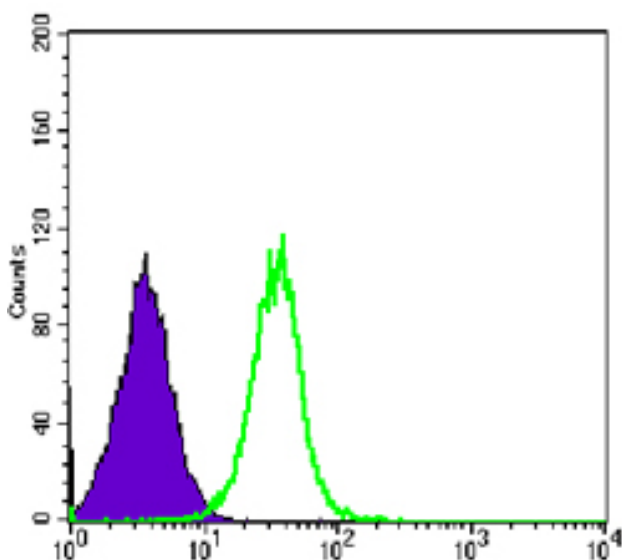
Western Blot analysis using GSK3 β Monoclonal Antibody against A549 (1), K562 (2), PC-12 (3), NIH/3T3 (4), and HEK293 (5) cell lysate.



Immunohistochemistry analysis of paraffin-embedded human lung cancer (left) and breast cancer tissues (right) with DAB staining using GSK3 β Monoclonal Antibody.



Immunofluorescence analysis of NIH/3T3 (left) and U251 (right) cells using GSK3 β Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of HeLa cells using GSK3 β Monoclonal Antibody (green) and negative control (purple).