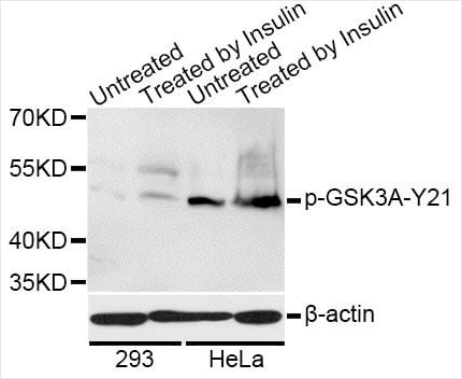
GSK3A Antibody – Rabbit

PRODUCT OVERVIEW

Product Name	GSK3A-S21, Antibody
Full Product Name	Phospho-GSK3A-S21
Product Gene Name	anti-GSK3A antibody
Host	Rabbit
Species Reactivity	Human
Molecular Weight	483
OMIM	606784
3D Structure	ModBase 3D Structure for P49840
Species	Human
Route	Synthetic Peptide
Product Categories/Family for anti-GSK3A antibody	Phosphorylation
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-GSK3A antibody	Western Blot (WB), Immunohistochemistry (IHC)
Related Product Information for anti-GSK3A antibody	MBS9126799 is an antibody targeting GSK3A. Also known as Phospho-GSK3A-S21. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-GSK3A antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-GSK3A antibody
Western blot analysis of extracts of 293 and HeLa cells, using Phospho-GSK3A-S21 antibody at 1:1000 dilution. 293 cells were treated by Insulin (100nM) for 10 minutes after serum-starvation overnight. HeLa cells were treated by Insulin (0.01U/ml) for 15 minutes after serum-starvation overnight.Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (MBS128200) at 1:10000 dilution.Lysates/proteins: 25ug per lane.Blocking buffer: 3% BSA.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GSK3A. It may not necessarily be applicable to this product.

NCBI GI #	12644292
NCBI GeneID	2931
NCBI Accession #	P49840.2
UniProt Primary Accession #	P49840
UniProt Secondary Accession #	O14959
UniProt Related Accession #	P49840
NCBI Official Full Name	Glycogen synthase kinase-3 alpha
NCBI Official Synonym Full Names	glycogen synthase kinase 3 alpha
NCBI Official Symbol	GSK3A
UniProt Protein Name	Glycogen synthase kinase-3 alpha
UniProt Synonym Protein Names	Serine/threonine-protein kinase GSK3A (EC:2.7.11.1)
Protein Family	Glycogen synthase kinase
UniProt Gene Name	GSK3A
UniProt Synonym Gene Names	GSK-3 alpha
UniProt Entry Name	GSK3A_HUMAN
NCBI Protein Information	glycogen synthase kinase-3 alpha; GSK-3 alpha; serine/threonine-protein kinase GSK3A
NCBI Summary for GSK3A	This gene encodes a multifunctional Ser/Thr protein kinase that is implicated in the control of several regulatory proteins including glycogen synthase, and transcription factors, such as JUN. It also plays a role in the WNT and PI3K signaling pathways, as well as regulates the production of beta-amyloid peptides associated with Alzheimer's disease. [provided by RefSeq, Oct 2011]
UniProt Comments for GSK3A	GSK3A: a proline-directed protein kinase of the GSK family. Implicated in the control of several regulatory proteins including glycogen synthase, Myb, and c-Jun. GSK3 and GSK3 have similar functions. GSK3 phophorylates tau, the principal component of neurofibrillary tangles in Alzheimer disease and is required for maximal production of amyloid plaque peptides by secretase. A GSK3 promoter SNP effects progression of bipolar disorder. The GSK3 inhibitor, lithium, is used to treat bipolar disorder and is seen to block plaque formation. GSK3 generally opposes the action of insulin, and GSK3 hyperactivity is thought to contribute to insulin resistant (type II) diabetes. GSK3 also negatively regulates cardiac hypertrophy. A tumor suppressor role is indicated by the oncogenic potential of stabilized -catenin mutants that lack GSK3 phosphorylation sites. Inhibitor: AR-A014418 Protein type: EC 2.7.11.1; Protein kinase, CMGC; Kinase, protein; Protein kinase, Ser/Thr (non-receptor); EC 2.7.11.26; CMGC group; GSK family; GSK subfamily Chromosomal Location of Human Ortholog: 19q13.2 Cellular Component: cytosol; beta-catenin destruction complex Molecular Function: protein serine/threonine kinase activity; protein binding; tau-protein kinase activity; ATP binding Biological Process: glycogen metabolic process; proteasomal ubiquitin-dependent protein catabolic process; genetic imprinting; nerve growth factor receptor signaling pathway; negative regulation of insulin receptor signaling pathway; protein amino acid phosphorylation; negative regulation of transferase activity; positive regulation of cAMP biosynthetic process; negative regulation of glycogen biosynthetic process; epidermal growth factor receptor signaling pathway; nervous system development; cell migration; negative regulation of TOR signaling pathway; Wnt receptor signaling pathway; phosphoinositide-mediated signaling; fibroblast growth factor receptor signaling pathway; unfolded protein response; positive regulation of peptidyl-serine phosphorylation; negative regulation of glucose import; cellular protein metabolic process; unfolded protein response, activation of signaling protein activity; cellular response to insulin stimulus; insulin receptor signaling pathway; positive regulation of protein catabolic process; regulation of systemic arterial blood pressure; innate immune response; positive regulation of transcription from RNA polymerase II promoter; positive regulation of heart contraction
Research Articles on GSK3A	**1.** PtpA has a role in promoting anti-apoptotic activity of protein-dependent dephosphorylation of host GSK3alpha

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