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+1 484.791.3823

Datasheet for 600-401-429

GSK3 Alpha phospho S21 Antibody

Overview

Description:	Anti-GSK3 alpha pS21 (RABBIT) Antibody - 600-401-429
Item No.:	600-401-429
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Glycogen synthase kinase 3 alpha (GSK3A) belongs to the ser/thr family of protein kinases, Cdc2/cdkx subfamily; gsk-3 subsubfamily. It is implicated in the hormonal control of several regulatory proteins including glycogen synthase, myb, and the transcription factor c-jun. GSK3A is a proline-directed serine-threonine kinase that was initially identified as a phosphorylating and inactivating glycogen synthase. Two isoforms, alpha (GSK3A) and beta (GSK3B), show a high degree of amino acid homology. GSK3B is involved in energy metabolism, neuronal cell development, and body pattern formation.
Synonyms:	rabbit anti-GSK3 alpha pS21 antibody, rabbit anti-GSK3α pS21 antibody, GSK 3 alpha pS21 antibody, Glycogen synthase kinase-3 alpha antibody, phosphorylated GSK-3 alpha antibody, GSK 3A antibody, GSK-3A antibody, GSK3alpha antibody, Serine/threonine-protein kinase GSK3A
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GSK3A
Reactivity:	Human
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic phospho-peptide corresponding to the N-Terminal region near aa 1-25 of human GSK3 alpha.
Purity/Specificity:	This affinity-purified antibody is directed against the phosphorylated form of human GSK3A at the pS 21 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. This phospho specific polyclonal antibody reacts with phosphorylated pS21 of human GSK3A. Reactivity with non-phosphorylated human GSK3A is minimal. A BLAST analysis was used to suggest reactivity with this protein from human, chimpanzee and rat based on 100% homology for the immunogen sequence. Cross reactivity with GSK3A homologues from other sources has not been determined.
Relevant Links:	• NCBI - 49574532 • UniProtKB - P49840 • GeneID - 2931

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity-purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 52 kDa in size corresponding to GSK3A by western blotting in the appropriate cell lysate or extract. Less than 1% reactivity is observed against the non-phosphorylated form of the immunizing peptide. This antibody is phospho specific for pS21 of GSK3A.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,000 - 1:10,000
IF:	User Optimized
WB:	1:500 - 1:3,000

Formulation

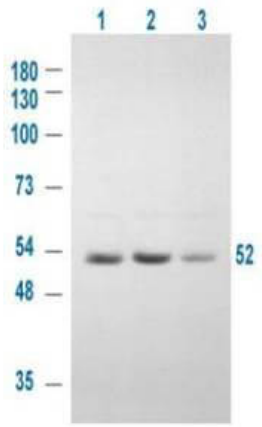
Physical State:	Liquid (sterile filtered)
Concentration:	1.28 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western blot using Rockland's Affinity Purified anti-GSK3A antibody shows detection of a 52 kDa band corresponding to human GSK3A in various human derived 293T cell extracts. Cells were serum starved for 24 h. Lane 1: control, Lane 2: treated with IGF-1 (100 ng/ml) for 20 min, Lane 3: pre-treated with 10 uM LY294002 (selective PI3K inhibitor) and treated with IGF-1 (100 ng/ml) for 20 min. Lane 1 shows some baseline GSK3A reactivity that is intensified upon stimulation (lane2) and diminished when an inhibitor is added (lane 3). Approximately 20 µg of lysate was run on a SDS-PAGE and transferred onto nitrocellulose followed by reaction with a 1:1,000 dilution of anti-GSK3A antibody. Signal was detected using standard techniques. Personal communication, Angela Carter, Experimental Therapeutics, Ontario Cancer Inst, Toronto, Canada

Disclaimer

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