DATASHEET

GSK3 alpha/beta (Phospho-Y279/216) Rabbit Polyclonal Antibody

CAT. NO. APA08624

KEY FEATURES

Target	GSK3 alpha/beta (Phospho-Y279/216)	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Zebrafish	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

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), CTNNB1/beta-catenin, APC and AXIN1 , 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 .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:200
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to GSK3 alpha/beta (Phospho-Y279/216)
Specificity	Recognizes endogenous levels of GSK3 alpha/beta protein only when phosphorylated at Y279/216.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding Y279/216 of human GSK3 alpha/beta protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 50; Observed: 51; 46 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	GSK3A; Glycogen synthase kinase-3 alpha; GSK-3 alpha; Serine/threonine-protein kinase GSK3A; GSK3B; Glycogen synthase kinase-3 beta; GSK-3 beta; Serine/threonine-protein kinase GSK3B
Gene Symbol	GSK3A; GSK3B
Entrez Gene	2931(Human); 606496; 56637(Mouse); 50686; 84027(Rat)
SwissProt	P49840; P49841(Human); Q2NL51; Q9WV60(Mouse); P18265; P18266(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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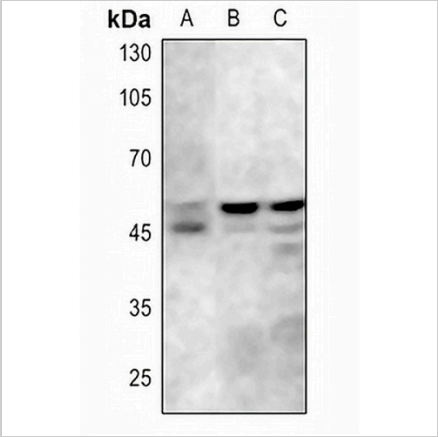
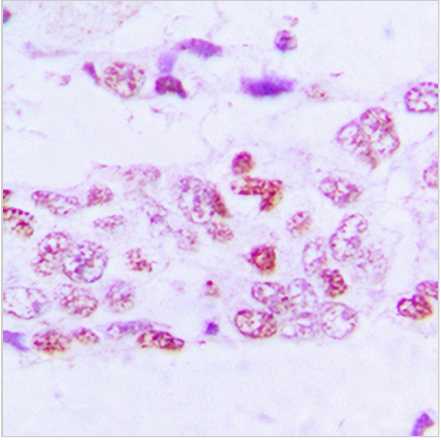
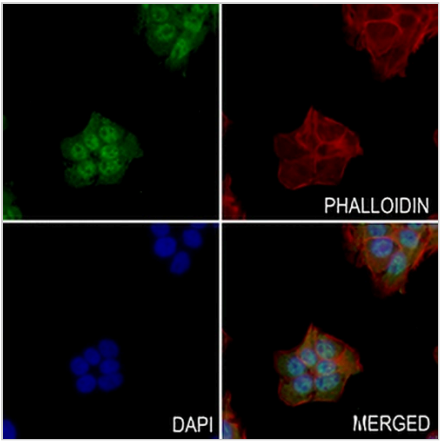
DATA



Western blot analysis of GSK3 alpha/beta (Phospho-Y279/216) expression in mouse testis (A), rat testis (B), rat spleen (C) whole cell lysates. (Predicted band size: 50; 46 kD; Observed band size: 51; 46 kD)



Immunohistochemical analysis of GSK3 alpha/beta (Phospho-Y279/216) staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of GSK3 alpha/beta (Phospho-Y279/216) staining in HIOEC cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.