

Datasheet for ABIN708116
anti-GSK3 alpha antibody (pSer21)

3 Images

1 Publication

[Go to Product page](#)

Overview

Quantity:	100 µL
Target:	GSK3 alpha (GSK3a)
Binding Specificity:	pSer21
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GSK3 alpha antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic phosphopeptide derived from human GSK3 Alpha around the phosphorylation site of Ser21
Isotype:	IgG
Specificity:	This phosphorylation site is homologous to that of Ser21 in Mouse and Rat.
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Human,Dog,Pig,Horse,Chicken
Purification:	Purified by Protein A.

Target Details

Target:	GSK3 alpha (GSK3a)
Alternative Name:	GSK3 Alpha (GSK3a Products)
Background:	<p>Synonyms: Glycogen synthase kinase-3 alpha, GSK-3 alpha, Serine/threonine-protein kinase GSK3A, GSK3A</p> <p>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. 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.</p>
Gene ID:	2931
UniProt:	P49840
Pathways:	PI3K-Akt Signaling , WNT Signaling , Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Neurotrophin Signaling Pathway , cAMP Metabolic Process , Cellular Glucan Metabolic Process , Regulation of Muscle Cell Differentiation , Regulation of G-Protein Coupled Receptor Protein Signaling , ER-Nucleus Signaling , Regulation of Carbohydrate Metabolic Process , BCR Signaling , Warburg Effect

Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200

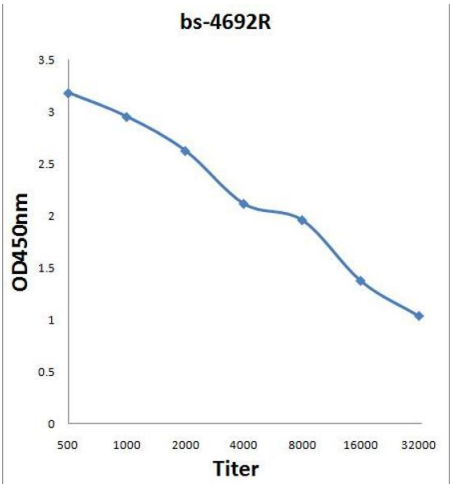
Application Details

Restrictions:	For Research Use only
Handling	
Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Publications

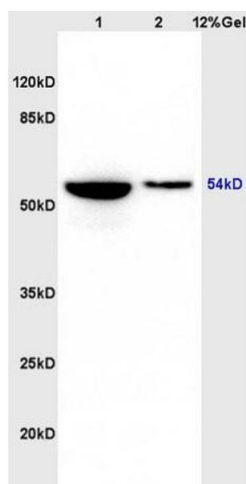
Product cited in:	Zhang, Zhao, Zhang, Hao, Yu, Min, Li, Ma, Chen, Yi, Tang, Meng, Liu, Wang, Shen, Zhang: "Decrease in male mouse fertility by hydrogen sulfide and/or ammonia can Be inheritable." in: Chemosphere , Vol. 194, pp. 147-157, (2018) (PubMed).
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Images



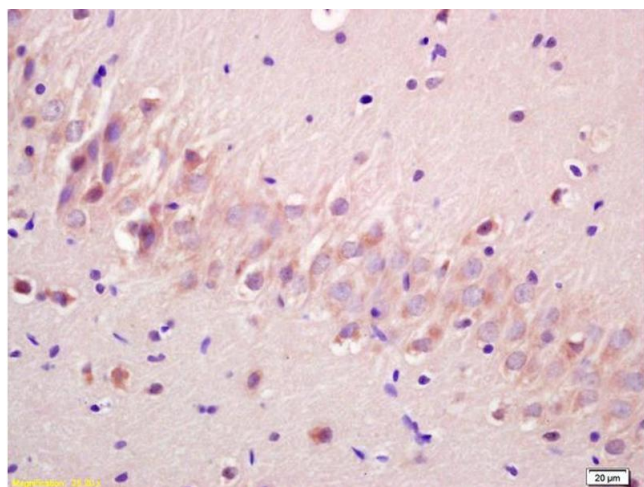
ELISA

Image 1. Antigen: 0.2 µg/100 µL Primary: Antiserum, 1:500, 1:1000, 1:2000, 1:4000, 1:8000, 1:16000, 1:32000; Secondary: HRP conjugated Goat-Anti-Rabbit IgG at 1: 5000; TMB staining; Read the data in MicroplateReader by 450



SDS-PAGE

Image 2. Lane 1: rat heart lysates Lane 2: rat brain lysates probed with Anti phospho-GSK3 Alpha(Ser21) Polyclonal Antibody, Unconjugated (ABIN708116) at 1:200 in 4 °C. Followed by conjugation to secondary antibody at 1:3000 90min in 37 °C. Predicted band 54kD. Observed band size: 54kD.



Immunohistochemistry

Image 3. Formalin-fixed and paraffin embedded rat brain labeled with Anti-phospho-GSK3 Alpha(Ser21) Polyclonal Antibody, Unconjugated (ABIN708116) at 1:200 followed by conjugation to the secondary antibody and DAB staining