Rabbit GSK3 alpha Polyclonal Antibody | anti-GSK3A antibody

GSK3 alpha (GSK3A) Antibody (N-term)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290718	**Rabbit**	**Human; Predicted Reactivity: Mouse, Rat**	**ELISA, Immunohistochemistry, Western Blot**

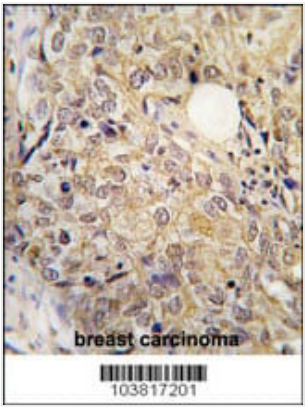
PRODUCT SYNONYMS

GSK3 alpha; Polyclonal Antibody; GSK3 alpha (GSK3A) Antibody (N-term); Glycogen synthase kinase-3 alpha; GSK-3 alpha; Serine/threonine-protein kinase GSK3A; GSK3A; anti-GSK3A antibody

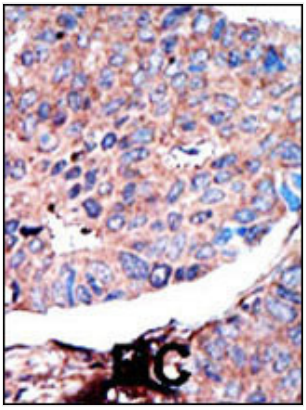
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human; Predicted Reactivity: Mouse, Rat
Clonality	Polyclonal
Isotype	Ig
Specificity	This GSK3A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 76~105 amino acids from the N-terminal region of human GSK3A.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Sequence Length	483
Applicable Applications for anti-GSK3A antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Subtitle	Purified Rabbit Polyclonal Antibody (Pab)
Antigen Region	76-105 aa
Antigen Type	Synthetic Peptide
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

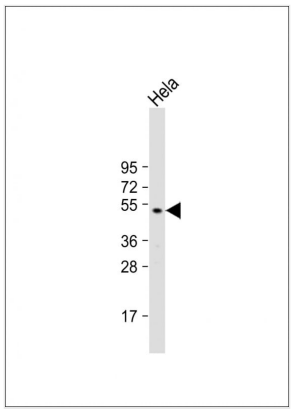
IMAGES



IHC (Immunohistochemisry)
Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with GSK3A Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



IHC (Immunohiostchemistry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
Anti-GSK3A Antibody (G83) at 1:1000 dilution + Hela whole cell lysateLysates/proteins at 20 ug per lane.SecondaryGoat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.Predicted band size : 51 kDaBlocking/Dilution buffer: 5% NFDM/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-GSK3A antibody	Description: Glycogen synthase kinase 3-alpha (GSK3A)is a multifunctional protein serine kinase implicated in the control of several regulatory proteins including glycogen synthase and transcription factors. It also plays a role in the WNT and PI3K signaling pathways. Under resting conditions GSK3A and its homologs are highly phosphorylated at tyr279 in the phosphorylation loop. Constitutive phosphorylation of this tyrosine is important for kinase activity. Dephosphorylation of tyr279 after mitogen activation is accompanied by kinase inactivation. PKA as well as PI3K-activated PKB inactivate GSK3A by phosphorylation at ser21. Lysophosphatidic acid primarily utilizes a PKC-dependent pathway to modulate GSK3 and certain growth factors (e. g. , PDGFB), which control GSK3 mainly through PIK3-PKB, are able to regulate GSK3 through an alternative, redundant PKC pathway. In mice expressing familial AD-associated mutations in APP and PSEN1, lithium reduced the levels of beta-amyloid peptides GSK3A also phosphorylates the tau protein, the principal component of neurofibrillary tangles in AD, and suggested that inhibition of GSK3A may offer a new therapeutic approach to AD. 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.
Product Categories/Family for anti-GSK3A antibody	Primary Antibodies; Cardiovascular; Cell Biology; Neuroscience; Signal Transduction
References	Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99 (26):16899-16903 (2002).

NCBI AND UNIPROT INFORMATION

NCBI GI #	49574532
NCBI GeneID	2931
NCBI Accession #	NP_063937.2
NCBI GenBank Nucleotide #	NM_019884.2
UniProt Accession #	P49840; O14959
Molecular Weight	50981 Da
NCBI Official Full Name	glycogen synthase kinase-3 alpha
NCBI Official Synonym Full Names	glycogen synthase kinase 3 alpha
NCBI Official Symbol	GSK3A
NCBI Protein Information	glycogen synthase kinase-3 alpha
UniProt Protein Name	Glycogen synthase kinase-3 alpha
UniProt Gene Name	**GSK3A**
UniProt Synonym Gene Names	GSK-3 alpha
UniProt Entry Name	GSK3A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/gsk3-alpha-antibody-immunohistochemistry-western-blot-elisa/290718