

Anti-Phospho-GSK3 alpha (S21) Antibody [PSH09-11]

HA723069



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, Dot Blot
Molecular Wt:	Predicted band size: 51 kDa
Clone number:	PSH09-11

Description: Glycogen synthase kinase-3 alpha is an enzyme that in humans is encoded by the GSK3A gene. Glycogen synthase kinase 3-alpha EC 2.7.1.37 is a multifunctional protein serine kinase, homologous to Drosophila 'shaggy' (zeste-white3) and implicated in the control of several regulatory proteins including glycogen synthase and various transcription factors (e.g., JUN). It also plays a role in the WNT and phosphoinositide 3-kinase (especially PIK3CG) signaling pathways.

Immunogen: Synthetic phospho-peptide corresponding to residues surrounding Ser21 of Human GSK3 alpha.

Positive control: A549 treated with 100nM Calyculin A for 30 minutes cell lysate, SH-SY5Y treated with 200nM Calyculin A and 1μM Okadaic Acid for 1 hour cell lysate, NIH/3T3 starved overnight cell lysate, NIH/3T3 starved overnight then treated with 100ng/mL PDGF for 5 minutes cell lysate, mouse testis tissue, human breast tissue, human colon cancer tissue.

Subcellular location: Apical dendrite, axon, cytoplasm, cytosol, mitochondrion, neuronal cell body, nucleus, postsynapse, proximal dendrite.

Database links: SwissProt: P49840 Human | Q2NL51 Mouse

Recommended Dilutions:

WB	1:2,000
IHC-P	1:200-1:500
Dot Blot	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

Service mail: support@huabio.cn

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

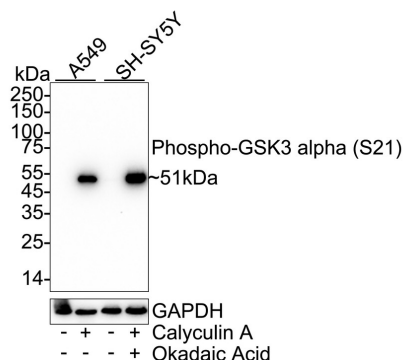


Fig1: Western blot analysis of Phospho-GSK3 alpha (S21) on different lysates with Rabbit anti-Phospho-GSK3 alpha (S21) antibody (HA723069) at 1/2,000 dilution.

Lane 1: A549 cell lysate

Lane 2: A549 treated with 100nM Calyculin A for 30 minutes cell lysate

Lane 3: SH-SY5Y cell lysate

Lane 4: SH-SY5Y treated with 200nM Calyculin A and 1μM Okadaic Acid for 1 hour cell lysate

Lysates/proteins at 20 μg/Lane.

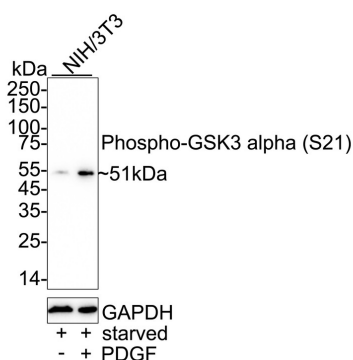
Predicted band size: 51 kDa

Observed band size: 51 kDa

Exposure time: 1 minute; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723069) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of Phospho-GSK3 alpha (S21) on different lysates with Rabbit anti-Phospho-GSK3 alpha (S21) antibody (HA723069) at 1/2,000 dilution.



Lane 1: NIH/3T3 starved overnight cell lysate

Lane 2: NIH/3T3 starved overnight then treated with 100ng/mL PDGF for 5 minutes cell lysate

Lysates/proteins at 20 μg/Lane.

Predicted band size: 51 kDa

Observed band size: 51 kDa

Exposure time: 3 minutes; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723069) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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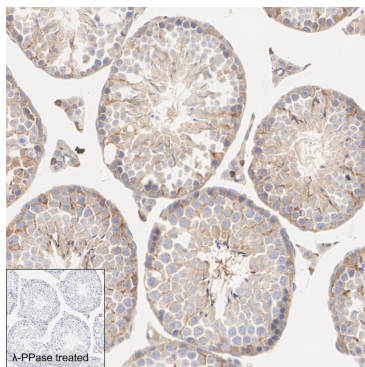


Fig3: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-Phospho-GSK3 alpha (S21) antibody (HA723069) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA723069) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

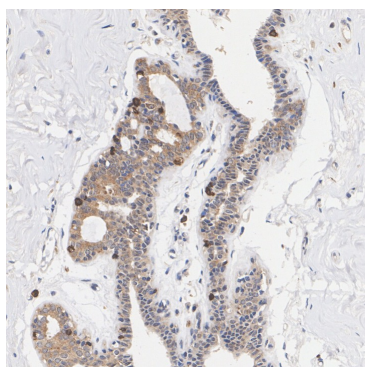


Fig4: Immunohistochemical analysis of paraffin-embedded human breast tissue with Rabbit anti-Phospho-GSK3 alpha (S21) antibody (HA723069) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA723069) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

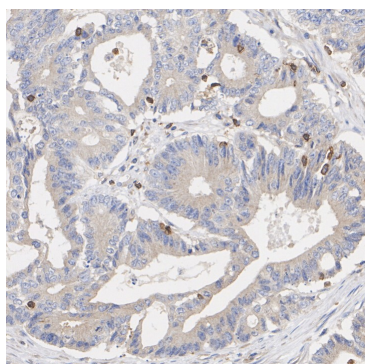


Fig5: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue with Rabbit anti-Phospho-GSK3 alpha (S21) antibody (HA723069) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA723069) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

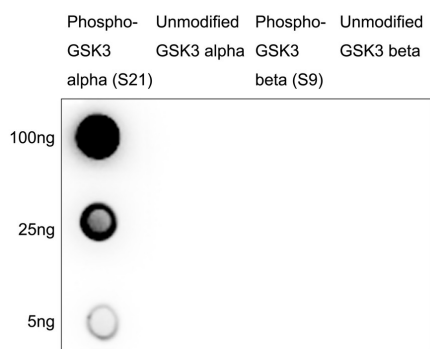


Fig6: Dot blot analysis of Phospho-GSK3 alpha (S21) on different peptides with Rabbit anti-Phospho-GSK3 alpha (S21) antibody (HA723069) at 1/1,000 dilution. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution for 1 hour at room temperature.

Lane 1: Phospho-GSK3 alpha (S21) peptide (positive)
Lane 2: Unmodified GSK3 alpha peptide (negative)
Lane 3: Phospho-GSK3 beta (S9) peptide (negative)
Lane 4: Unmodified GSK3 beta peptide (negative)

Proteins loading: 100ng, 25ng, 5ng;

Blocking and dilution buffer: 5% NFDM/TBST;

Exposure time: 10 seconds; ECL: K1801.

Note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Wang J et al. Quantitative phosphoproteomics reveals GSK3A substrate network is involved in the cryodamage of sperm motility. Biosci Rep. 2021 Oct

2. Zhang W et al. Active Ingredient Paeonol of Jijiu Huiyang Decoction Alleviates Isoproterenol-Induced Chronic Heart Failure via the GSK3A/PPARalpha Pathway. Oxid Med Cell Longev. 2023 Feb