

Anti-GSK3 alpha Antibody

R1312-1



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 51 kDa

Description: Glycogen synthase kinase-3 alpha is an enzyme that in humans is encoded by the GSK3A gene. It 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. GSK3 alpha requires primed phosphorylation of the majority of its substrates. It contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis. GSK3 alpha regulates glycogen metabolism in liver, but not in muscle. It may also mediate the development of insulin resistance by regulating activation of transcription factors. In Wnt signaling, GSK3 alpha regulates the level and transcriptional activity of nuclear CTNNB1/beta-catenin.

Immunogen: Synthetic peptide within Human GSK3 alpha aa 434-483 / 483.

Positive control: Hela, HepG2, PC-3M, Jurkat, human brain

Subcellular location: Cytoplasm, Nucleus, Apical dendrite, Mitochondrion.

Database links: SwissProt: P49840 Human

Recommended Dilutions:

WB	1:1000
IF-Cell	1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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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

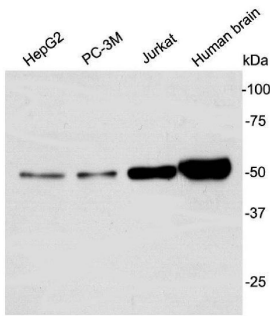


Fig1: Western blot analysis on different cell lysates using anti-GSK3 alpha rabbit polyclonal antibodies.

Fig2: Western blot analysis of GSK3 alpha on different lysates with Rabbit anti-GSK3 alpha antibody (R1312-1) at 1/1,000 dilution.

Lane 1: A549-WT cell lysate
Lane 2: A549-KD GSK3 alpha cell lysate

Lysates/proteins at 10 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 (R1312-1) at 1/1,000 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.

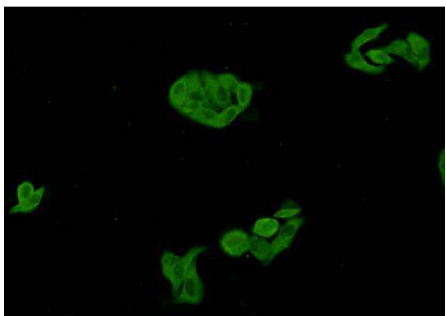
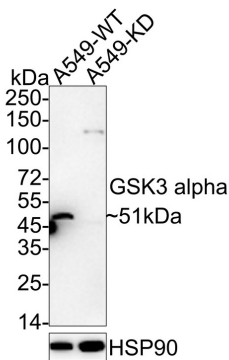


Fig3: ICC staining GSK3 alpha in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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

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101.2021-2040(2001)

2. "GSK-3alpha regulates production of Alzheimer's disease amyloid-beta peptides." Phiel C.J., Wilson C.A., Lee V.M., Klein P.S. *Nature* 423:435-439(2003)
3. "GSK3alpha exhibits beta-catenin and tau directed kinase activities that are modulated by Wnt." Asuni A.A., Hooper C., Reynolds C.H., Lovestone S., Anderton B.H., Killick R. *Eur. J. Neurosci.* 24:3387-3392(2006) "Glycogen synthase kinase 3: more than a namesake." Rayasam G.V., Tulasi V.K., Sodhi R., Davis J.A., Ray A. *Br. J. Pharmacol.* 156:885-898(2009)