

## Anti-Phospho-GSKα (Ser21)

Rabbit Polyclonal Antibody

Catalog # **G08-65R**

Lot # B3216-44

### Cited Applications

ELISA, IF, WB

Ideal working dilutions for each application should be empirically determined by the investigator.

### Specificity

Recognizes the human GSK3 alpha protein phosphorylated at Serine 21

### Cross Reactivity

Human

### Host/Isotype/Clone#

Rabbit, IgG

### Immunogen

The antibody was produced against synthesized peptide corresponding to amino acids 16-25 of human GSK3 alpha

### Formulation

0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 + 0.01% (w/v) Sodium Azide

### Stability

1yr at -20°C from date of shipment

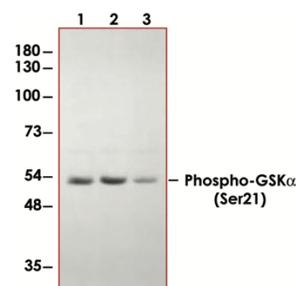
### Scientific Background

GSK3α 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 transcription factors (e.g., JUN) (1). GSK3α also plays a role in the WNT and PI3K signaling pathways. Alzheimer disease is associated with increased production and aggregation of amyloid-beta-40 and -42 peptides into plaques. GSK3α is required for maximal production of the beta-amyloid-40 and -42 peptides generated from the amyloid precursor protein by presenilin-dependent gamma-secretase cleavage. In vitro, lithium, a GSK3α inhibitor, blocks the production of the beta-amyloid peptides by interfering with the gamma-secretase step (2).

### References:

1. Ali, A. et al: Glycogen synthase kinase-3 : properties, functions, and regulation. *Chem. Rev.* 101: 2527-2540, 2001.
2. Piel, C J. et al: GSK-3-alpha regulates production of Alzheimer's disease amyloid-beta peptides. *Nature* 423: 435-439, 2003.

### Sample Data



Western blot using Affinity Purified Anti-Phospho-GSKα (Ser21) antibody to detect human GSK3A in various human derived 293T cell extracts. Cells were serum starved for 24 h. Lane 1: control, Lane 2: treated with IGF-1 (100 ng/ml) for 20 min, Lane 3: pre-treated with 10 uM LY294002 (selective PI3K inhibitor) and treated with IGF-1 (100 ng/ml) for 20 min.

## Anti-phospho-GSKα

Rabbit Polyclonal Antibody

Catalog #	G08-65R
Lot #	B3216-44
Purification	Immunoaffinity chromatography
Stability	1yr at -20°C from date of shipment
Storage & Shipping	Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: [orders@signalchem.com](mailto:orders@signalchem.com)  
[www.signalchem.com](http://www.signalchem.com)

**FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.**