

## Product datasheet for **AP02309PU-S**

### GSK3 alpha (GSK3A) pSer21 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500 - 1/1000, incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0,1% Tween-20 at 4°C with gentle shaking, overnight. <b>Immunohistochemistry on paraffin sections:</b> 1/50 - 1/100. <b>Immunofluorescence:</b> 1/100 - 1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized phosphopeptide derived from human GSK3alpha around the phosphorylation site of serine 21 (T-S-SP-F-A).
Specificity:	GSK3alpha (phospho-Ser21) antibody detects endogenous levels of GSK3alpha only when phosphorylated at serine 21.
Formulation:	Phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150 mM NaCl containing 0.02% Sodium Azide as preservative and 50% glycerol as stabilizer State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Immunoaffinity chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	glycogen synthase kinase 3 alpha
Database Link:	<a href="#">Entrez Gene 2931 Human P49840</a>



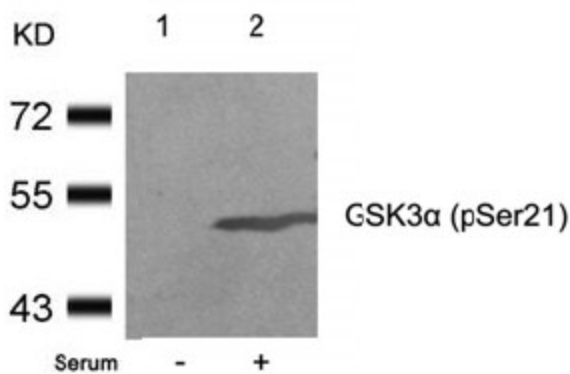
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**Background:**

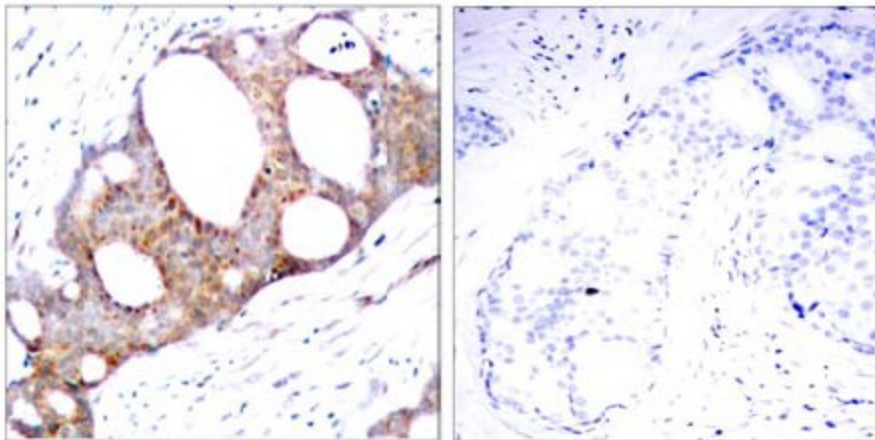
Glycogen synthase kinase 3 alpha belongs to the Ser/Thr family of protein kinases, Cdc2/cdkx subfamily; GSK3 subsubfamily. It is implicated in the hormonal control of several regulatory proteins including glycogen synthase, myb, and the transcription factor c jun. GSK3 phosphorylates glycogen synthase and thereby inactivates it. Insulin stimulates the dephosphorylation of glycogen synthase at the sites phosphorylated by GSK3 and subsequently inhibits GSK3 acutely leading to the stimulation of glycogen synthesis. GSK3 signaling is performed by two isoforms, GSK3 alpha and GSK3 beta. The two isoforms share 97% sequence similarity within their catalytic domains. GSK3 has also been shown to play a role in protein synthesis, cell adhesion, cell proliferation, cell differentiation, microtubule dynamics and cell motility.

**Synonyms:**

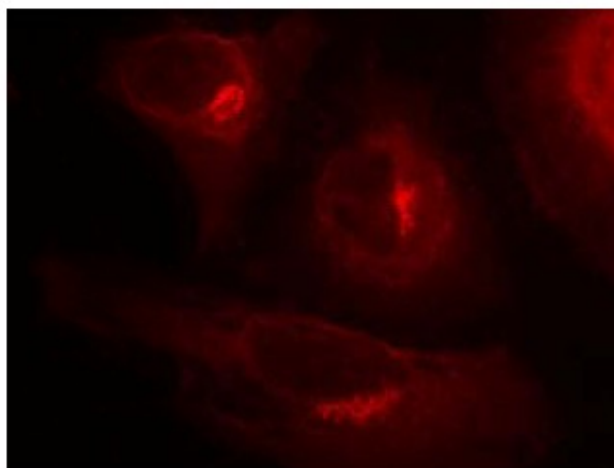
Glycogen synthase kinase-3 alpha, GSK3A, GSK-3 alpha, Factor A

**Product images:**


Western Blot analysis of extracts from 293 cells untreated (Lane 1) or treated with serum (Lane 2) using GSK3alpha (pSer21) Antibody



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using GSK3alpha (pSer21) Antibody (left) or the same Antibody preincubated with blocking peptide (right)



Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining using GSK3alpha (pSer21) Antibody