

## Product datasheet for **AP01594PU-N**

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

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IHC, IP, WB
Recommended Dilution:	<b>Western Blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections</b> 1/50-1/200. <b>Immunoprecipitation:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of GSK3 alpha pSer21 protein.
Formulation:	Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~ 51 kDa
Gene Name:	glycogen synthase kinase 3 alpha
Database Link:	<a href="#">Entrez Gene 2931 Human P49840</a>



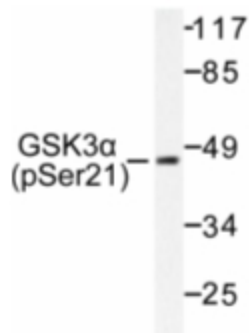
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**Background:**

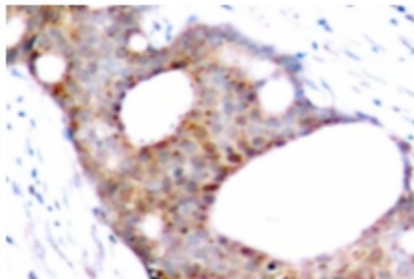
Glycogen synthase kinase-3  $\alpha$  and  $\beta$  (GSK-3 $\alpha$ ,  $\beta$ ) are serine/threonine kinases that regulate metabolic enzymes and transcription factors, which are responsible for coordinating processes such as glycogen synthesis and cell adhesion. GSK-3 $\beta$  activity is also required for nuclear activity of Rel dimers, which mediate an anti-apoptotic response to TNF $\alpha$  in mice. GSK-3 catalytic kinase activity is controlled through differential phosphorylation of serine/threonine residues, which have an inhibitory effect, and tyrosine residues, which have an activating effect. Growth factor stimulation of mammalian cells expressing GSK-3 $\alpha$  and GSK-3 $\beta$  induces phosphorylation of Ser 21 and Ser 9, respectively through a phosphatidylinositol 3-kinase (PI 3-kinase)-protein kinase B (PKB) dependent pathway, thereby enhancing proliferative signals. Additionally, GSK-3 physically associates with cAMP-dependent protein kinase A (PKA), which phosphorylates Ser 21 of GSK-3 $\alpha$  or Ser 9 of GSK-3 $\beta$  and inactivates both forms.

**Synonyms:**

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

**Product images:**

Western blot (WB) analysis of GSK3 $\alpha$  pSer21 antibody (Cat.-No.: AP01594PU-N) in extracts from ovary cancer.



Immunohistochemistry (IHC) analysis of GSK3 $\alpha$  pSer21 Antibody (Cat.-No.: AP01594PU-N) in paraffin-embedded human breast carcinoma tissue.