

## GSK3 $\alpha$ (phospho-S21) polyclonal antibody

Catalog: BCP00846

Host: Rabbit

Reactivity: Human, Mouse, Rat

### 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

### Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

~ 51 kDa

### Swiss-Prot:

P49840

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB: 1:500~1:1000

IHC: 1:50~1:200

IP: 1:50~1:200

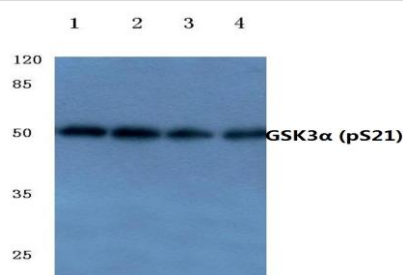
### Storage&Stability:

Store at 4  $^{\circ}$ C short term. Aliquot and store at -20  $^{\circ}$ C long term. Avoid freeze-thaw cycles.

### Specificity:

p-GSK3 $\alpha$  (S21) polyclonal antibody detects endogenous levels of GSK3 $\alpha$  protein only when phosphorylated at Ser21 .

### DATA:



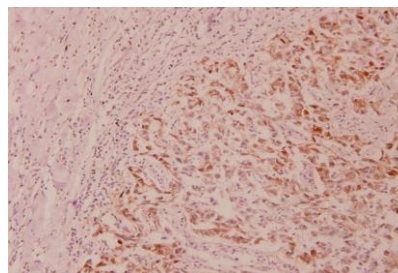
Western blot (WB) analysis of p-GSK3 $\alpha$  (S21) polyclonal antibody at 1:500 dilution

Lane1:HEK293T cell lysate treated with UV

Lane2:Mouse liver tissue lysate

Lane3:Rat liver tissue lysate

Lane4:PC12 cell lysate treated with H2O2



Immunohistochemistry (IHC) analyzes of p-GSK3 $\alpha$  (S21) pAb in paraffin-embedded human breast carcinoma tissue at 1:100.

### Note:

For research use only, not for use in diagnostic procedure.