## **Bioworld Technology CO., Ltd.**



# p-GSK3α (S21) Peptide

Cat No.: BS4082P

### 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-3β activity is also required for nuclear activity of Rel dimers, which mediate an anti-apoptotic response to TNFa 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-3a 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-3a or Ser 9 of GSK-3β and inactivates both forms

Swiss-Prot

P49840

### Applications

Blocking

Specificity

This peptide can be used with studies using BS4082 p-GSK3 $\alpha$  (S21) pAb.

#### **Purification & Purity**

Synthetic peptide p-GSK3 $\alpha$  (S21). (Note: the amino acid sequence is proprietary). The purity is > 98%.

Product

1 mg/ml in DI water.

Storage & Stability

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

**Research Use** 

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