

# PRODUCT DATA SHEET

Bioworld Technology,Inc.

# GSK3α (phospho-S21) polyclonal antibody

Catalog: BS4082 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-3β activity is also required for nuclear activity of Rel dimers, which mediate an anti-apoptotic response to TNFα 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-3α and GSK-3β 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. Addi-GSK-3 tionally, physically associates cAMP-dependent protein kinase A (PKA), which phosphorylates Ser 21 of GSK-3α or Ser 9 of GSK-3β and inactivates both forms

### **Product:**

1 mg/ml in Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2.

## **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:

Bioworld Technology, Inc.
Add: 1660 South Highway 100, Suite 500 St. Louis Park,

MN 55416,USA.

Email: <u>info@bioworlde.com</u>

Tel: 6123263284 Fax: 6122933841 Store at  $4\,\mathrm{C}$  short term. Aliquot and store at  $-20\,\mathrm{C}$  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:



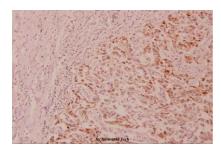
Western blot (WB) analysis of p-GSK3 $\alpha$  (S21) polyclonal antibody at 1:500 dilution

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-GSK3a (S21) pAb in paraffin-embedded human breast carcinoma tissue at 1:100.

#### Note:

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

# Bioworld technology, co. Ltd.

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