

## Recombinant Human GSK-3 $\alpha$ -GST Fusion Protein

<b>CATALOG NO:</b>	7003-100
<b>AMOUNT:</b>	100 $\mu$ g
<b>MOL. WEIGHT:</b>	37 kDa
<b>PREPERATION:</b>	GSK-3 $\alpha$ (P49840) was expressed in <i>E. coli</i> . It is expressed as a recombinant fusion protein of GSK-3 $\alpha$ residues (amino acid 12-30) surrounding GSK-3 $\alpha$ (Ser21) and glutathione S-transferase (GST). The protein was purified by affinity chromatography.
<b>FORM:</b>	Lyophilized powder without additives.
<b>RECONSTITUTION:</b>	Reconstitute in sterile H <sub>2</sub> O
<b>STORAGE CONDITIONS:</b>	Store at -20 $^{\circ}$ C. For long term storage, aliquot and freeze at -70 $^{\circ}$ C. Avoid repeated freeze/defrost cycles.
<b>DESCRIPTION:</b>	GSK-3 is one of the Akt substrates. It can be phosphorylated by Akt at Ser21 of GSK-3 $\alpha$ or Ser9 of GSK-3 $\beta$ . The phosphorylation of GSK negatively regulates its kinase activity. The recombinant GSK-3 $\alpha$ fusion protein serves as a useful substrate for assaying Akt kinase activity.
<b>ACTIVITY:</b>	GSK-3 $\alpha$ fusion protein at a concentration of 2 $\mu$ g/20 $\mu$ l reaction was phosphorylated in an <i>in vitro</i> kinase assay with 200 $\mu$ M ATP. After 30 minutes incubation at 30 $^{\circ}$ C, phosphorylation was detected by Western blot with phospho-specific GSK-3 $\alpha$ antibodies.
<b>REFERENCES:</b>	Sutherland, C. et al. (1993) <i>Biochem.J.</i> 296:15-19.



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