

Recombinant Human Glycogen Synthase Kinase 3 Alpha

Cat. No. GSK3A-1133H Lot. No. (See product label)

SPECIFICATION

Product Overview	The recombinant GSK3A fusion protein serves as a useful substrate for assaying Akt kinase activity.
Species	Human
Source	E.coli
Description	GSK3A is one of the Akt substrates. It can be phosphorylated by Akt at Ser21 of GSK3A or Ser9 of GSK-3 β . The phosphorylation of GSK negatively regulates its kinase activity.
Biological Activity	GSK3A fusion protein at a concentration of 2 μ g/20 μ reaction was phosphorylated in an in vitro kinase assay with 200 μ M ATP. After 30 minutes incubation at 30°C, phosphorylation was detected by Western blot with phospho-specific GSK3A antibodies.
Molecular Weight	37.0 kDa
Form	Liquid. 2.mg/ml in storage buffer containing 20 mM Tris-HCL (pH 7.5), 50 mM Nacl, 2 mM EDTA, 0.1 Mm DTT, and 50% glycerol.
Appearance	Liquid
Storage	-20°C or -70°C.

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Pathways

AKT phosphorylates targets in the cytosol; Activation of Chaperones by IRE1alpha; B Cell Receptor Signaling Pathway; Chemokine signaling pathway; Class I PI3K signaling events mediated by Akt; Diabetes pathways; Dopaminergic synapse; Downstream signaling of activated FGFR; FOXM1 transcription factor network; Glycogen Metabolism; IL-3 Signaling Pathway; IL-5 Signaling Pathway; Insulin Signaling; NGF signalling via TRKA from the plasma membrane; PI-3K cascade

GENE INFORMATION

Gene Name [GSK3A glycogen synthase kinase 3 alpha \[Homo sapiens \]](#)

Official Symbol [GSK3A](#)

Synonyms [GSK3A](#); glycogen synthase kinase 3 alpha; DKFZp686D0638; Glycogen synthase kinase-3 alpha; GSK-3 alpha; EC 2.7.11.26

Gene ID [2931](#)

mRNA Refseq [NM_019884](#)

Protein Refseq [NP_063937](#)

MIM [606784](#)

UniProt ID [P49840](#)

Chromosome Location [19q13](#)

Function ATP binding; protein binding; nucleotide binding; transferase activity; glycogen synthase kinase 3 activity; protein kinase A catalytic subunit binding; tau-protein

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kinase activity

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