

Active Recombinant Human GSK3 alpha, GST-tagged

Cat. No. GSK3A-1411H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human GSK3alpha was expressed by baculovirus in Sf9 insect cells using a N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	Full length
Description	GSK3α is a multifunctional protein serine kinase, homologous to Drosophila shaggy (zeste-white3) and implicated in the control of several regulatory proteins including glycogen synthase and transcription factors (e.g., JUN). GSK3α also plays a role in the WNT and PI3K signaling pathways. Alzheimer disease is associated with increased production and aggregation of amyloid-beta-40 and -42 peptides into plaques. GSK3α is required for maximal production of the beta-amyloid-40 and -42 peptides generated from the amyloid precursor protein by presenilin-dependent gamma-secretase cleavage. In vitro, lithium, a GSK3α inhibitor, blocks the production of the beta-amyloid peptides by interfering with the gamma-secretase step.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, 25% glycerol.
Bio-activity	184 nmol/min/mg
Molecular Mass	~81 kDa

 Tel: 1-631-559-9269 1-516-512-3133

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Purity	>90%
Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.1µg/µl
GENE INFORMATION	
Gene Name	GSK3A glycogen synthase kinase 3 alpha [Homo sapiens]
Official Symbol	GSK3A
Synonyms	GSK3A; glycogen synthase kinase 3 alpha; glycogen synthase kinase-3 alpha; GSK-3 alpha; serine/threonine-protein kinase GSK3A; DKFZp686D0638;
Gene ID	2931
mRNA Refseq	NM_019884
Protein Refseq	NP_063937
MIM	606784
UniProt ID	P49840
Chromosome Location	19q13
Pathway	AKT phosphorylates targets in the cytosol, organism-specific biosystem; Activation of

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Chaperone Genes by XBP1(S), organism-specific biosystem; Activation of Chaperones by IRE1alpha, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem; B Cell Receptor Signaling Pathway, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem;

Function

ATP binding; nucleotide binding; protein binding; protein kinase A catalytic subunit binding; protein serine/threonine kinase activity; tau-protein kinase activity;