

**Catalog No.: RP03406LQ** **Recombinant**

Species	Gene ID	Swiss Prot
Human	2931	P49840

**Tags**  
N-GST

GSK3A; GSK-3 alpha; GSK3 alpha;  
GSK3α; Glycogen synthase kinase-3  
alpha

Source	Purification
Baculovirus-Insect Cells	≥ 85% as determined by SDS-PAGE; ≥ 85% as determined by HPLC.

Calculated MW	Observed MW
77.5 kDa	70-85 kDa

< 1 EU/μg of the protein by LAL method.

Supplied as a 0.22 µm filtered solution in 50 mM Tris-HCl, 150 mM NaCl, 5% glycerol, 5 mM DTT, 0.1 M Trehalose. (pH 7.5). Contact us for customized product form or formulation.

Please use running water to thaw it quickly.

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Glycogen synthase kinase-3 alpha is an enzyme that in humans is encoded by the GSK3A gene. Glycogen synthase kinase 3 (GSK-3) is a serine/threonine protein kinase that mediates the addition of phosphate molecules onto serine and threonine amino acid residues. In mammals, GSK-3 exists in two isozymes encoded by two homologous genes GSK-3 $\alpha$  (GSK3A) and GSK-3 $\beta$  (GSK3B). GSK-3 has been the subject of much research since it has been implicated in a number of diseases, including type 2 diabetes, Alzheimer's disease, inflammation, cancer, addiction and bipolar disorder. GSK3A 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 various transcription factors (e.g., JUN). It also plays a role in the WNT and phosphoinositide 3-kinase (especially PIK3CG) signaling pathways.

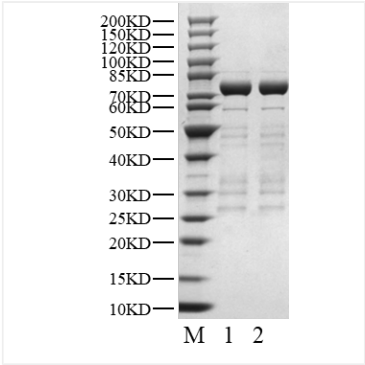
Recombinant Human GSK-3 alpha/GSK3A Kinase is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Ser2-Ser483) of Human GSK3A (Accession #P49840) fused with a N-GST tag.

The activity of GSK3A is based on the MSA technology, and the content and ratio of the substrate and the product are directly separated and detected in real time and dynamically by the different migration rates of the substrate and the product after the enzymatic reaction.

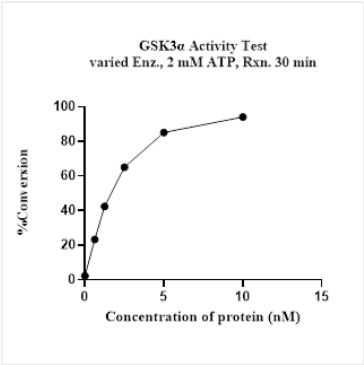
Store at -70°C. This product is stable at  $\leq -70^{\circ}\text{C}$  for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.

Aliquots below 10  $\mu\text{L}$  are not advisable. Product must not be stored in diluted solutions. Avoid repeated freeze-thaw cycles.

Validation Data



Recombinant Human GSK-3 alpha/GSK3A Kinase was resolved with SDS-PAGE under reducing (Lane 1) and non-reducing (Lane 2) conditions.



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