GSK-3 beta Protein, Human (sf9, His)

Cat. No.:	HY-P74114
Synonyms:	Glycogen synthase kinase-3 beta; GSK-3 beta; Gsk3b
Species:	Human
Source:	Sf9 insect cells
Accession:	NP_002084.2 (M1-T433)
Gene ID:	2932
Molecular Weight:	44-48 kDa

PROPERTIES

AA Sequence	M S G R P R T T S F A E S C K P V Q Q P S A F G S M K V S R D K D G S K V T T V V A T P G Q G P D R P Q E V S Y T D T K V I G N G S F G V V Y Q A K L C D S G E L V A I K K V L Q D K R F K N R E L Q I M R K L D H C N I V R L R Y F F Y S S G E K K D E V Y L N L V L D Y V P E T V Y R V A R H Y S R A K Q T L P V I Y V K L Y M Y Q L F R S L A Y I H S F G I C H R D I K P Q N L L L D P D T A V L K L C D F G S A K Q L V R G E P N V S Y I C S R Y Y R A P E L I F G A T D Y T S S I D V W S A G C V L A E L L L G Q P I F P G D S G V D Q L V E I I K V L G T P T R E Q I R E M N P N Y T E F K F P Q I K A H P W T K D S S G T G H F T S G V R V F R P R T P P E A I A L C S R L L E Y T P T A R L T P L E A C A H S F F D E L R D P N V K L P N G R D T P A L F N F T T Q E L S S N P P L A T I L I P P H A R I Q A A A S T P T N A T A A S D A N T G D R G Q T N N A A S A S A S N S T
Biological Activity	1. The specific activity was determined to be > 45 nmol/min/mg using synthetic Phospho-Glycogen Synthase Peptide-2 (YRRAAVPPSPSLSRHSSPHQpSEDEEE) as substrate. 2. Immobilized His-GSK3B at 10 μg/ml (100 μl/well) can bind biotinylated human HG3C-CTNNB1, EC_{50} of biotinylated human HG3C-CTNNB1is 0.15-0.35 μg/ml.
Appearance	Solution
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 25% glycerol, 0.5 mM PMSF, 0.5 mM EDTA.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	The GSK-3 beta Protein, a serine-threonine kinase within the glycogen synthase kinase subfamily, functions as a negative regulator of glucose homeostasis and plays a crucial role in energy metabolism, inflammation, ER-stress, mitochondrial dysfunction, and apoptotic pathways. Defects in this gene have been linked to Parkinson's disease and Alzheimer's disease, highlighting its significance in neurodegenerative conditions. Ubiquitously expressed, GSK-3 beta exhibits elevated levels in the brain (RPKM 13.9), thyroid (RPKM 9.9), and 25 other tissues, underscoring its broad involvement in various physiological processes across multiple organs.

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