Proteins

Product Data Sheet

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

Cat. No.: HY-P74114

Synonyms: Glycogen synthase kinase-3 beta; GSK-3 beta; Gsk3b

Species:

Source: Sf9 insect cells

Accession: NP_002084.2 (M1-T433)

Gene ID: 2932

Molecular Weight: 44-48 kDa

PROPERTIES

MSGRPRTTSF AESCKPVQQP SAFGSMKVSR DKDGSKVTTV VATPGQGPDR PQEVSYTDTK VIGNGSFGVV YQAKLCDSGE LVAIKKVLQD KRFKNRELQI MRKLDHCNIV RLRYFFYSSG EKKDEVYLNL VLDYVPETTYY RVARHYSRAK QTLPVIYVKL YMYQLFRSLA YIHSFGICHR DIKPQNLLLD PDTAVLKLCD FGSAKQLVRG EPNVSYICSR YYRAPELIFG ATDYTSSIDV WSAGCVLAEL LLGQPIFPGD SGVDQLVEII KVLGTPTREQ IREMNPNYTE FKFPQIKAHP WTKDSSGTGH FTSGVRVFRP RTPPEAIALC SRLLEYTPTA RLTPLEACAH SFFDELRDPN VKLPNGRDTP ALFNFTTQEL SSNPPLATIL IPPHARIQAA ASTPTNATAA SDANTGDRGQ TNNAASASAS NST Biological Activity 1. The specific activity was determined to be > 45 nmol/min/mg using synthetic Phospho-Glycogen Synthase Peptide-2 (YRRAAVPPSPLSRHSSPHQPSEDEEE) 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. Reconstitution 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 1					
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LVAIKKVLQD KRFKNRELQI MRKLDHCNIV RLRYFFYSSG EKKDEVYLNL VLDYVPETVY RVARHYSRAK QTLPVIYVKL YMYQLFRSLA YIHSFGICHR DIKPQNLLLD PDTAVLKLCD FGSAKQLVRG EPNVSYICSR YYRAPELIFG ATDYTSSIDV WSAGCVLAEL LLGQPIFPGD SGVDQLVEII KVLGTPTREQ IREMNPNYTE FKFPQIKAHP WTKDSSGTGH FTSGVRVFRP RTPPEAIALC SRLLEYTPTA RLTPLEACAH SFFDELRDPN VKLPNGRDTP ALFNFTTQEL SSNPPLATIL IPPHARIQAA ASTPTNATAA SDANTGDRGQ TNNAASASAS NST 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-CTNNB1s 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. 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					
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	Reconsititution	N/A.			
extended storage. Avoid repeated freeze-thaw cycles.	Storage & Stability				
Shipping Shipping with dry ice	Shipping	Shipping with dry ice			

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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.

Caution: Product has not been fully validated for medical applications. For research use only.

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