

Product datasheet for **SC323707**

GSK3 beta (GSK3B) (NM_002093) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSK3 beta (GSK3B) (NM_002093) Human Untagged Clone
Tag:	Tag Free
Symbol:	GSK3B
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002093, the custom clone sequence may differ by one or more nucleotides

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ATGTCAGGGCGGCCAGAACCACCTCCTTTGCGGAGAGCTGCAAGCCGGTGCAGCAGCCTTCAGCTTTTG
GCAGCATGAAAGTTAGCAGAGACAAGGACGGCAGCAAGGTGACAACAGTGGTGGCAACTCCTGGGCAGGG
TCCAGACAGGCCACAAGAAGTCAGCTATACAGACACTAAAGTGATTGAAATGGATCATTGGTGTGGTA
TATCAAGCCAACTTTGTGATTCAGGAGAACTGGTCGCCATCAAGAAAGTATTGCAGGACAAGAGATTTA
AGAATCGAGAGCTCCAGATCATGAGAAAGCTAGATCACTGTAACATAGTCCGATTGCGTTATTTCTTCTA
CTCCAGTGGTGAGAAGAAAGATGAGGTCTATCTTAATCTGGTGCTGGACTATGTTCCGAAACAGTATAC
AGAGTTGCCAGACACTATAGTCGAGCCAAACAGACGCTCCCTGTGATTTATGTCAAGTTGTATGTATC
AGCTGTTCCGAAGTTTAGCCTATATCCATTCTTTGGAATCTGCCATCGGGATATTAACCCGAGAACCCT
CTTGTTGGATCCTGATACTGCTGTATTAATAACTCTGTGACTTTGGAAGTGCAAAGCAGCTGGTCCGAGGA
GAACCAATGTTTCGTATATCTGTTCTCGTACTATAGGGCACCAGAGTTGATCTTTGGAGCCACTGATT
ATACCTCTAGTATAGATGTATGGTCTGCTGGCTGTGTGTTGGCTGAGCTGTTACTAGGACAACCAATATT
TCCAGGGGATAGTGGTGTGGATCAGTTGGTAGAAATAATCAAGGTCTGGGAACCCAACAAGGGAGCAA
ATCAGAGAAATGAACCCAACTACACAGAATTTAAATCCCTCAAATTAAGGCACATCCTGGACTAAGG
ATTCGTCAGGAACAGGACATTTACCTCAGGAGTGCAGGCTTCCGACCCGAACTCCACCGGAGGCAAT
TGCAGTGTAGCCGTCTGCTGGAGTATACACCAACTGCCGACTAACCCACTGGAAGCTGTGCACAT
TCATTTTTTGATGAATTACGGGACCCAAATGTCAAACCTACCAAATGGGCGAGACACACCTGCACTTTCA
ACTTCACCACTCAAGAACTGTCAAGTAATCCACCTCTGGCTACCATCCTTATTCTCCTCATGCTCGGAT
TCAAGCAGCTGCTTCAACCCCAAAATGCCACAGCAGCGTCAGATGCTAATACTGGAGACCGTGGACAG
ACCAATAATGCTGCTTCTGCATCAGCTTCCAACCTCCACCTGA
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_002093 unedited AGCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCCGCGGCTTGCCGG AGCTGCAGCGTTTCCCGTCGCATCTCCGAGCCACCCCTCCCTCCCTCCTCCCTCCTACCCATCCCC CTTTCTCTTAAGCGTGAGACTCGTGATCCTTCCGCCGCTTCCCTTCTTATTGACTAGGAAAAAATC CCCGAGGAAAATAAATATTCGAAGTACTATTTTCAATCAAGTATTTGCCCCGTTTACGTGATACAT ATTTTTTTAGGATTTGCCCTCTTTTTCTCTCCCTCCAGGAAAGGAGGGGAAAGAATTGATTTTTTCC CAAGTCCTAAATCATCTATATGTTAAATATCCGTGCCGATCTGTCTTGAAGGAGAAATATATCGCTTGT TTGTTTTTATAGTATACAAAAGGAGTGAAAAGCCAAGAGGACGAAGTCTTTTTCTTTCTTCTGTGGG AGAACTTAATGCTGCATTATCGTTAACCTAACCCCCAACATAAAGACAAAAGGAAAGAAAAGGAGGAAG GAAGGAAAAGGTGATTCGGAAGAGAGTGATCATGTCAGGCGGCCAGAACCCCTTTGCGGAGAGC TGCAAGCCGGTGCAGCAGCCTTCAGCTTTTGGCAGCATGAAAGTAGCAGAGACACGACGGCAGCAAGGT GACACAGTGGTGGCAACTCCTGGCAGGGTCCAGACAGGCCACAGAAGTCAGCTATACAGACTAAAGT GATTGAAATGGATCATTTGGTGGTATATCAAGCAAACTTTGTGATCAGGAGACTGGTCGCATCATTGA AAGTTTGCAGGAACAAGGAGATTAAGAATC
Kinase Domain Sequence:	>SC323706 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation GAGGACGGACAGACACCTCTTTGCGGAGAGCTGCAAGCCGGTGCAGCAGCCTTCAGCTTTTGGCAGCAT GAAAGTTAGCAGAGACAAGGACGGCAGCAAGGTGACAACAGTGGTGGCAACTCCTGGCAGGGTCCAGAC AGGCCACAAGAAGTCAGCTATACAGACTAAAGTGGTGGAAATGGATCATTGGTGTGGTATATCAAG CCAAACTTTGTGATTCAGGAGAACTGGTCGCCATCATGAAAGTAT
Restriction Sites:	Please inquire
ACCN:	NM_002093
Insert Size:	1680 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_002093.2 , NP_002084.2

RefSeq Size:	1639 bp
RefSeq ORF:	1302 bp
Locus ID:	2932
UniProt ID:	P49841
Cytogenetics:	3q13.33
Domains:	pkinese, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Alzheimer's disease, Axon guidance, Basal cell carcinoma, B cell receptor signaling pathway, Cell cycle, Chemokine signaling pathway, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Focal adhesion, Hedgehog signaling pathway, Insulin signaling pathway, Melanogenesis, Neurotrophin signaling pathway, Pathways in cancer, Prostate cancer, T cell receptor signaling pathway, Wnt signaling pathway
Gene Summary:	<p>The protein encoded by this gene is a serine-threonine kinase belonging to the glycogen synthase kinase subfamily. It is a negative regulator of glucose homeostasis and is involved in energy metabolism, inflammation, ER-stress, mitochondrial dysfunction, and apoptotic pathways. Defects in this gene have been associated with Parkinson disease and Alzheimer disease. [provided by RefSeq, Aug 2017]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>