

## Product datasheet for **SC319432**

### **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:	GSK3 beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_002093.2  
 ATCATCTATATGTTAAATATCCGTGCCGATCTGTCTTGAAGGAGAAATATATCGCTTGTT  
 TTGTTTTTATAGTATACAAAAGGAGTGAAAAGCCAAGAGGACGAAGTCTTTTTCTTTTT  
 CTTCTGTGGGAGAACTTAATGCTGCATTATCGTTAACCTAACACCCCAACATAAAGACA  
 AAAGGAAGAAAAGGAGGAAGGAAGGAAAAGGTGATTCGCGAAGAGAGTGATCATGTCAGG  
 GCGGCCCAGAACCACCTCCTTTGCGGAGAGCTGCAAGCCGGTGCAGCAGCCTTCAGCTTT  
 TGGCAGCATGAAAGTTAGCAGAGACAAGGACGGCAGCAAGGTGACAACAGTGGTGGCAAC  
 TCCTGGGCAGGGTCCAGACAGGCCACAAGAAGTCAGCTATACAGACACTAAAGTGATTGG  
 AAATGGATCATTTGGTGTGGTATATCAAGCCAAACTTTGTGATTCAGGAGAACTGGTCGC  
 CATCAAGAAAGTATTGCAGGACAAGAGATTTAAGAATCGAGAGCTCCAGATCATGAGAAA  
 GCTAGATCACTGTAAACATAGTCCGATTGCGTTATTTCTTCTACTCCAGTGGTGAAGAA  
 AGATGAGGTCTATCTTAATCTGGTGTGGACTATGTTCCGAAACAGTATACAGAGTTGC  
 CAGACACTATAGTCGAGCCAAACAGACGCTCCCTGTGATTTATGTCAAGTTGTATATGTA  
 TCAGCTGTTCCGAAGTTTAGCCTATATCCATTCCTTTGGAACTGCCATCGGGATATTAA  
 ACCGCAGAACCTCTTGTGGATCCTGATACTGCTGATTTAAAACCTGTGACTTTGGAAG  
 TGCAAAGCAGCTGGTCCGAGGAGAACCCTAATGTTTCGTATATCTGTTCTCGGTACTATAG  
 GGCACCAGAGTTGATCTTTGGAGCCACTGATTATACCTCTAGTATAGATGTATGGTCTGC  
 TGGCTGTGTGTTGGCTGAGCTGTTACTAGGACAACCAATATTTCCAGGGGATAGTGGTGT  
 GGATCAGTTGGTAGAAAATAATCAAGGTCCTGGGAACTCCAACAAGGGAGCAAATCAGAGA  
 AATGAACCCAACTACACAGAATTTAAATTCCTCAAATTAAGGCACATCCTTGGACTAA  
 GGATTCGTCAGGAACAGGACATTTACCTCAGGAGTGGGGTCTTCGACCCCGAACTCC  
 ACCGGAGGCAATTGCACTGTGTAGCCGTCTGCTGGAGTATACACCAACTGCCGACTAAC  
 ACCACTGGAAGCTTGTGCACATTCATTTTTTATGAATTACGGGACCCAAATGTCAAAT  
 ACCAAATGGGCGAGACACACTGCACTCTTCAACTTCACCACTCAAGAAGTGTCAAGTAA  
 TCCACCTCTGGCTACCATCCTTATTCTCCTCATGCTCGGATTCAAGCAGCTGTTCAAC  
 CCCCACAAATGCCACAGCAGCGTCAGATGCTAATACTGGAGACCGTGGACAGACCAATAA  
 TGCTGCTTCTGCATCAGCTTCCAACCTCCACCTGAACAGTCCCAGCAGCCAGCTGCACAG  
 GAAAAACCACCAGTTACTTGAGTGTCACTCAGCAACACTGGTCACGTTTGGAAAGAATAT  
 TAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_002093

**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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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:**

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:** pkinase, 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:** 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]  
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.