

Product datasheet for SC327523

OriGene Technologies, Inc.

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GSK3 beta (GSK3B) (NM_001146156) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: GSK3 beta (GSK3B) (NM 001146156) Human Untagged Clone

Tag:Tag FreeSymbol:GSK3 betaMammalian CellNeomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC327523 representing NM_001146156.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGTCAGGGCGGCCCAGAACCACCTCCTTTGCGGAGAGCTGCAAGCCGGTGCAGCAGCCTTCAGCTTTT GGCAGCATGAAAGTTAGCAGAGACAAGGACGGCAGCAAGGTGACAACAGTGGTGGCAACTCCTGGGCAG GGTCCAGACAGGCCACAAGAAGTCAGCTATACAGACACTAAAGTGATTGGAAATGGATCATTTGGTGTG GTATATCAAGCCAAACTTTGTGATTCAGGAGAACTGGTCGCCATCAAGAAAGTATTGCAGGACAAGAGA TTTAAGAATCGAGAGCTCCAGATCATGAGAAAGCTAGATCACTGTAACATAGTCCGATTGCGTTATTTC TTCTACTCCAGTGGTGAGAAGAAGATGAGGTCTATCTTAATCTGGTGCTGGACTATGTTCCGGAAACA GTATACAGAGTTGCCAGACACTATAGTCGAGCCAAACAGACGCTCCCTGTGATTTATGTCAAGTTGTAT ATGTATCAGCTGTTCCGAAGTTTAGCCTATATCCATTCCTTTGGAATCTGCCATCGGGATATTAAACCG CAGAACCTCTTGTTGGATCCTGATACTGCTGTATTAAAACTCTGTGACTTTGGAAGTGCAAAGCAGCTG GTCCGAGGAGAACCCAATGTTTCGTATATCTGTTCTCGGTACTATAGGGCACCAGAGTTGATCTTTGGA CAACCAATATTTCCAGGGGATAGTGGTGTGGATCAGTTGGTAGAAATAATCAAGGTCCTGGGAACTCCA ACAAGGGAGCAAATCAGAGAAATGAACCCAAACTACACAGAATTTAAATTCCCTCAAATTAAGGCACAT CCTTGGACTAAGGTCTTCCGACCCCGAACTCCACCGGAGGCAATTGCACTGTGTAGCCGTCTGCTGGAG CCAAATGTCAAACTACCAAATGGGCGAGACACACCTGCACTCTTCAACTTCACCACTCAAGAACTGTCA AGTAATCCACCTCTGGCTACCATCCTTATTCCTCCTCATGCTCGGATTCAAGCAGCTGCTTCAACCCCC ACAAATGCCACAGCAGCGTCAGATGCTAATACTGGAGACCGTGGACAGACCAATAATGCTGCTTCTGCA TCAGCTTCCAACTCCACCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: Sgfl-Mlul





ACCN: NM_001146156

Insert Size: 1263 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts

of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at customer.com or by

calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

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: <u>NM 001146156.1</u>

 RefSeq Size:
 7095 bp

 RefSeq ORF:
 1263 bp

 Locus ID:
 2932

 UniProt ID:
 P49841

 Cytogenetics:
 3q13.33

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



MW:

46.7 kDa

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 (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to 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.