

Product datasheet for **RC228888**

GSK3 beta (GSK3B) (NM_001146156) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GSK3 beta (GSK3B) (NM_001146156) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GSK3 beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC228888 representing NM_001146156 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCAGGGCGGCCAGAACCACCTCCTTTGCGGAGAGCTGCAAGCCGGTGCAGCAGCCTTCAGCTTTTG
GCAGCATGAAAGTTAGCAGAGACAAGGACGGCAGCAAGGTGACAACAGTGGTGGCAACTCCTGGGCAGGG
TCCAGACAGGCCACAAGAAGTCAGCTATACAGACACTAAAGTATTGGAAATGGATCATTGGTGTGGTA
TATCAAGCCAACTTTGTGATTCAGGAGAACTGGTCGCCATCAAGAAAGTATTGCAGGACAAGAGATTTA
AGAATCGAGAGCTCCAGATCATGAGAAAGCTAGATCACTGTAACATAGTCCGATTGCGTTATTTCTTCTA
CTCCAGTGGTGAGAAGAAGATGAGGTCTATCTTAATCTGGTGCTGGACTATGTTCCGAAACAGTATAC
AGAGTTGCCAGACACTATAGTCGAGCCAAACAGACGCTCCCTGTGATTTATGCAAGTTGTATATGTATC
AGCTGTTCCGAAGTTTAGCCTATATCCATTCTTTGGAATCTGCCATCGGGATATTAACCCGAGAACCT
CTTGTTGGATCCTGATACTGCTGTATTAATAACTCTGTGACTTTGGAAGTGCAAAGCAGCTGGTCCGAGGA
GAACCAATGTTTCGTATATCTGTTCTCGGTACTATAGGGCACCAGAGTTGATCTTTGGAGCCACTGATT
ATACCTCTAGTATAGATGTATGGTCTGCTGGCTGTGTGGCTGAGCTGTTACTAGGACAACCAATATT
TCCAGGGGATAGTGGTGGATCAGTTGGTAGAAATAATCAAGGTCTGGAACTCCAACAAGGGAGCAA
ATCAGAGAAATGAACCCAACTACACAGAAATTTAAATTCCTCAAATTAAGGCACATCCTTGGACTAAGG
TCTTCCGACCCCGAACTCCACCGAGGCAATTGCACTGTGTAGCCGTCTGCTGGAGTATACACCAACTGC
CCGACTAACACCACTGGAAGCTTGTGCACATTCATTTTTGATGAATTACGGGACCCAAATGTCAAACCTA
CCAAATGGGCGAGACACACCTGCACTCTTCAACTTCAACTCAAGAACTGTCAAGTAATCCACCTCTGG
CTACCATCCTTATTCCTCCTCATGCTCGGATTCAGCAGCTGTTCAACCCCAAAAATGCCACAGCAGC
GTCAGATGCTAATACTGGAGACCGTGGACAGACCAATAATGCTGCTTCTGCATCAGCTTCCAACCTCACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC228888 representing NM_001146156
Red=Cloning site Green=Tags(s)

MSGRPRTTSFAESCKPVQQPSAFGSMKVS RDKDGSKVTTVVATPGQGPDRPQEVSYDTDKVIGNSGFGVV
 YQAKLCDSGELVAIKKVLQDKRFKNRELQIMRKLDHCNIVRLRYFFYSSEKKEDEVYLNLVLDYVPETVY
 RVARHYSRAKQTLPIYVKLYMYQLFRSLAYIHSFGICHRDIKPQNLLDPDTAVLKLKDFGSAKQLVRG
 EPNVSYICSRYYRAPELIFGATDYTSSIDVWSAGCVLAELLGQPIFGDGSVDQLVEIIKVLGTPTREQ
 IREMNPNYTEFKFPQIKAHWPWKVFRPRTPEAIALCSRLLLEYTPARLTPLAECAHSFFDEL RDPNVKL
 PNGRDTPALFNFTTQELSSNPPLATILIPPHARIQAAASTPTNATAASDANTGDRGQTNNASASASNST

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1827_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001146156

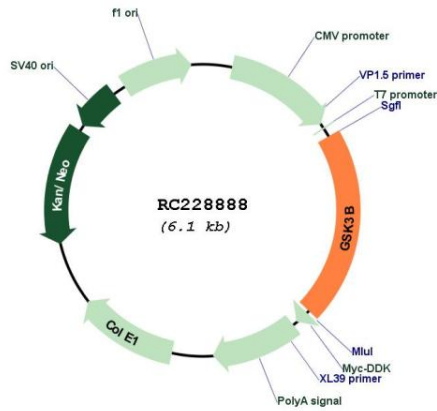
ORF Size: 1260 bp

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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

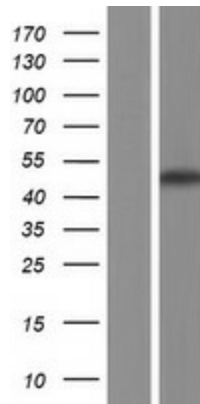
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001146156.2
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:	46.6 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]

Product images:



Circular map for RC228888



Western blot validation of overexpression lysate (Cat# [LY431916]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228888 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).