

## Product datasheet for **RG200468**

### GSK3 beta (GSK3B) (NM\_002093) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GSK3 beta (GSK3B) (NM_002093) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GSK3 beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200468 representing NM_002093 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGTCAGGGCGGCCAGAACCACCTCCTTTGCGGAGAGCTGCAAGCCGGTGCAGCAGCCTTCAGCTTTTG  
GCAGCATGAAAGTTAGCAGAGACAAGGACGGCAGCAAGGTGACAACAGTGGTGGCAACTCCTGGGCAGGG  
TCCAGACAGGCCACAAGAAGTCAGCTATACAGACACTAAAGTATTGGAAATGGATCATTGGTGTGGTA  
TATCAAGCCAACTTTGTGATTCAGGAGAACTGGTCGCCATCAAGAAAGTATTGCAGGACAAGAGATTTA  
AGAATCGAGAGCTCCAGATCATGAGAAAGCTAGATCACTGTAACATAGTCCGATTGCGTTATTTCTTCTA  
CTCCAGTGGTGAGAAGAAGATGAGGTCTATCTTAATCTGGTGCTGGACTATGTTCCGAAACAGTATAC  
AGAGTTGCCAGACACTATAGTCGAGCCAAACAGACGCTCCCTGTGATTTATGCAAGTTGTATATGTATC  
AGCTGTTCCGAAGTTTAGCCTATATCCATTCTTTGGAATCTGCCATCGGGATATTAACCCGAGAACCT  
CTTGTTGGATCCTGATACTGCTGTATTAATAACTCTGTGACTTTGGAAGTGCAAAGCAGCTGGTCCGAGGA  
GAACCCAATGTTTCGTATATCTGTTCTCGTACTATAGGGCACCAGAGTTGATCTTTGGAGCCACTGATT  
ATACCTCTAGTATAGATGTATGGTCTGCTGGCTGTGTGGCTGAGCTGTTACTAGGACAACCAATATT  
TCCAGGGGATAGTGGTGGATCAGTTGGTAGAAATAATCAAGGTCTGGAACTCCAACAAGGGAGCAA  
ATCAGAGAAATGAACCCAACTACACAGAAATTTAAATTCCTCAAATTAAGGCACATCCTTGACTAAGG  
ATTCGTCAGGAACAGGACATTTACCTCAGGAGTGCAGGCTCTCCGACCCGAACCTCCACCGAGGCAAT  
TGCACTGTGTAGCCGTCTGCTGGAGTATACACCAACTGCCCGACTAACCCACTGGAAGCTTGTGCACAT  
TCATTTTTTGTGAATTACGGGACCCAAATGTCAAACCTACCAAATGGGCGAGACACACCTGCACTTTCA  
ACTTCACCACTCAAGAACTGTCAAGTAATCCACCTCTGGTACCATCCTTATTCTCCTCATGCTCGGAT  
TCAAGCAGCTGCTTCAACCCCACAAAATGCCACAGCAGCGTCAGATGCTAATACTGGAGACCGTGGACAG  
ACCAATAATGCTGCTTCTGCATCAGCTTCCAACCTCCACC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG200468 representing NM\_002093  
Red=Cloning site Green=Tags(s)

MSGRPRTTSFAESCKPVQQPSAFGSMKVS RDKD GSKVTTVVATPGQGDRPQEVSYTDTKVI GNGSFGVV  
 YQAKLCDSGELVAIKKVLQDKRFKNRELQIMRKL DHCNI VRLRYFFYSSGEKKDEVYLN LVDYVPETVY  
 RVARHYSRAKQTL PVIYVKLYMYQLFRSLAYIHSFGICH RDIKPQNLLDPDTAVLKLKDFGSAKQLVRG  
 EPNVSYICSRYYRAPELIFGATDYTSSIDVWSAGCVLAELLLGQPIFGDSGVDQLVEI IKVLGTP TREQ  
 IREMNPNYTEFKFPQIKAH PWTKDSSGTGHFTSGYRVFRPRTPPEAIALCSRLLEYTP TARLTPLEACAH  
 SFFDEL RDPNVKLPNGRDTPALFNFTTQELSSNPPLATILIPPHARIQAAASTPTNATAASDANTGDRGQ  
 TNN AASASASNST

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002093

**ORF Size:** 1299 bp

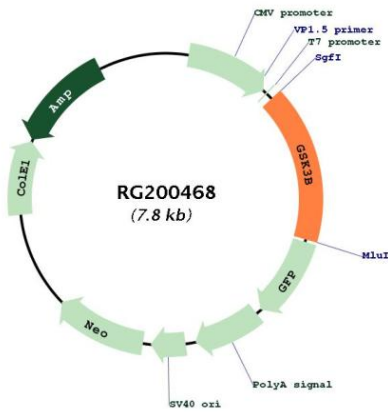
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_002093.4</a>
<b>RefSeq Size:</b>	1639 bp
<b>RefSeq ORF:</b>	1302 bp
<b>Locus ID:</b>	2932
<b>UniProt ID:</b>	<a href="#">P49841</a>
<b>Cytogenetics:</b>	3q13.33
<b>Domains:</b>	pkinase, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	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
<b>Gene Summary:</b>	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 RG200468