

## Product datasheet for **RG202557**

### Nck beta (NCK2) (NM\_003581) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nck beta (NCK2) (NM_003581) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nck beta
Synonyms:	GRB4; NCKbeta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202557 representing NM_003581 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACAGAAGAAGTTATTGTGATAGCCAAGTGGGACTACACCGCCAGCAGGACCAGGAGCTGGACATCA  
AGAAGAACGAGCGGCTGTGGTTGCTGGACGACTCCAAGACGTGGTGGCGGGTGGAGAACGCGCCAAACAG  
GACGGGCTATGTACCGTCCAACACGTGGAGCGGAAGAAGACAGCCTGAAGAAGGGCTCCCTCGTGAAGAAC  
CTGAAGGACACACTAGGCCTCGGCAAGACGCGCAGGAAGACCAGCGCGGGATGCGTCCCCACGCCCA  
GCACGGACGCGGAGTACCCCGCCAATGGCAGCGGCGCGACCGCATCTACGACCTCAACATCCCGGCCTT  
CGTCAAGTTCGCCTATGTGGCCGAGCGGGAGGATGAGTTGTCCTGGTGAAGGGTTCGCGCGTACCGCTC  
ATGGAGAAGTGCAGCGACGGTTGGTGGCGGGCAGCTACAACGGGACGATCGGCTGGTCCCTCCAAC  
ACGTCTTGAGGAGGTGGACGAGGCGGCTGCGGAGTCCCCAAGCTTCTGAGCCTGCGCAAGGGCGCCTC  
GCTGAGCAATGGCCAGGGCTCCCGCGTGTGATGTGGTCCAGACGCTGTACCCCTCAGCTCAGTCACC  
GAGGAGGAGCTCAACTTCGAGAAGGGGGAGACCATGGAGGTGATTGAGAAGCCGGAGAACGACCCCGAGT  
GGTGAAATGCAAAAATGCCCGGGCCAGGTGGGCTCGTCCCCAAAACACTCGTGGTGGTCCCTCAGTGA  
CGGGCTGCCCTGCACCTGCGCACGCCACAGATAAGCTACACCGGGCCCTCGTCCAGCGGGCGCTTC  
GCGGGCAGAGAGTGGTACTACGGAACTGACCGCGCACCGAGTCCGAGTCCGAGTCCGAGCGGGGCTC  
TGGAGGGCGACTTCTCATTAGGGACAGCGAGTCTCGCCAGCGACTTCTCCGTGTCCCTTAAAGCGTC  
AGGGAAGAACAACAACACTTCAAGGTGCAGCTCGTGGACAATGTCTACTGCATTGGGAGCGGCGCTTCCAC  
ACCATGGACGAGCTGGTGAACACTACAAAAGGCGCCATCTTACCAGCGAGCACGGGAGAAGCTCT  
ACCTCGTCAGGGCCCTGCAG

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG202557 representing NM\_003581  
 Red=Cloning site Green=Tags(s)

MTEEVIVIAKWDYTAQQDQELDIIKNERLWLLDDSKTWWRVNRNAANRTGYVPSNYVERKNSLKKGSLVKN  
 LKDTLGLGKTRRKSARDASPTPSTDAEYPANGSGADRIYDLNIPAFVKFAYVAEREDEL SLVKGSRVTV  
 MEKCSDGWWRGSYNGQIGWFPNSYVLEEVEAAAEPSFLSLRKGASLSNGQGSRLVHVQTLYPFSSVT  
 EEELNFEKGETMEVIEKPENDPEWVKCKNARGQVGLVPKNYVVVLSDGPALHPAHAPQISYTGPSSSGRF  
 AGREWYYGNVTRHQAEALNERGVEGDFLIRDSESSPSDFSVSLKASGKNKHFKVQLVDNVYICIGQRRFH  
 TMDLVEHYKKAPIFTSEHGKLYLVRALQ

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003581

**ORF Size:** 1140 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).

**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\\_003581.5](#)

**RefSeq Size:** 2698 bp

**RefSeq ORF:** 1143 bp

**Locus ID:** 8440

**UniProt ID:** [O43639](#)

**Cytogenetics:** 2q12.2

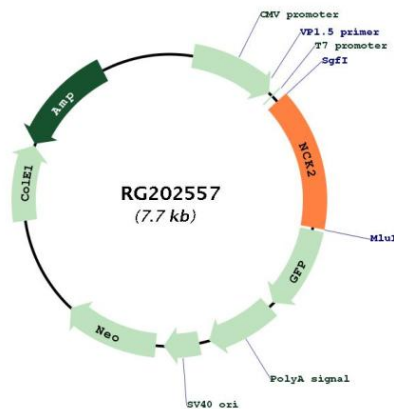
**Domains:** SH2, SH3

**Protein Families:** Druggable Genome

**Protein Pathways:** Axon guidance, ErbB signaling pathway, Pathogenic Escherichia coli infection, T cell receptor signaling pathway

**Gene Summary:** This gene encodes a member of the NCK family of adaptor proteins. The protein contains three SH3 domains and one SH2 domain. The protein has no known catalytic function but has been shown to bind and recruit various proteins involved in the regulation of receptor protein tyrosine kinases. It is through these regulatory activities that this protein is believed to be involved in cytoskeletal reorganization. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG202557