

## Product datasheet for RC200470

### GNB3 (NM\_002075) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GNB3 (NM_002075) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GNB3
Synonyms:	CSNB1H
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200470 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGGAGATGGAGCAACTGCGTCAGGAAGCGGAGCAGCTCAAGAAGCAGATTGCAGATGCCAGGAAAG  
CCTGTGCTGACGTTACTCTGGCAGAGCTGGTGTCTGGCCTAGAGGTGGTGGGACGAGTCCAGATGCGGAC  
GCGGGGACGTTAAGGGGACACCTGGCCAAGATTTACGCCATGCACTGGGCCACTGATTCTAAGCTGCTG  
GTAAGTGCCTCGAAGATGGGAAGCTGATCGTGTGGGACAGCTACACCACCAACAAGGTGCACGCCATCC  
CACTGCGCTCCTCTGGGTCATGACCTGTGCTATGCCCATCAGGGAACTTTGTGGCATGTGGGGGCT  
GGACAACATGTGTCCATCTACAACCTCAAATCCCGTGAGGGCAATGTCAAGGTCAGCCGGGAGCTTTCT  
GCTCACACAGGTTATCTCTCTGCTGCCGCTTCTGGATGACAACAATATTGTGACCAGCTCGGGGGACA  
CCACGTGTGCCTTGTGGGACATTGAGACTGGGCAGCAGAAGACTGTATTTGTGGGACACCGGGTACTG  
CATGAGCCTGGCTGTGTCTCCTGACTTCAATCTTTCATTTTGGGGGCTGTGATGCCAGTGCCAAGCTC  
TGGGATGTGCGAGAGGGGACCTGCCGTCAGACTTCACTGGCCACGAGTCGGACATCAACGCCATCTGTT  
TCTTCCCAATGGAGAGGCCATCTGCACGGGCTCGGATGACGCTTCTGCCGCTTGTGTTGACCTGCGGGC  
AGACCAGGAGCTGATCTGCTTCTCCACGAGAGCATCATCTGCAGCATCACGTCCGTGGCCTTCTCCCTC  
AGTGGCCGCTACTATTCGCTGGCTACGACGACTTCAACTGCAATGTCTGGGACTCCATGAAGTCTGAGC  
GTGTGGGATCCTCTCTGGCCACGATAACAGGGTGAGCTGCCTGGGAGTCACAGCTGACGGGATGGCTGT  
GGCCACAGGTTCTCTGGGACAGCTTCTCAAATCTGGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200470 protein sequence  
Red=Cloning site Green=Tags(s)

MGEMQLRQEAQLKKQIADARKACADVTLAELVSGLEVVGVRVQMRTRRTL RGH LAKIYAMHWATDSKLL  
 VSASQDGKLIWDSYTTNKVHA IPLRSSWVMT CAYAPSGNFVACGGLDNMCSIYNLKSREGNVKVSRELS  
 AHTGYLSCCRFLDDNNIVTSSGDTTCALWDIETGQOKTVFVGHTGDCMSLAVSPDFNLFISGACDASAKL  
 WDVREGTCRQTF TGHESDINAICFPNGEAICTGSDDASCRLFDLRADQELICFSHESIICSITSVAFSL  
 SGRLLFAGYDDFNCNVWDSMKSERV GILSGHDNRV SCLGVTADGMAVATGSWDSFLKIWN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6178\\_a02.zip](https://cdn.origene.com/chromatograms/mk6178_a02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002075

**ORF Size:** 1020 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\\_002075.4](#)

**RefSeq Size:** 1760 bp

**RefSeq ORF:** 1023 bp

**Locus ID:** 2784

**UniProt ID:** [P16520](#)

**Cytogenetics:** 12p13.31

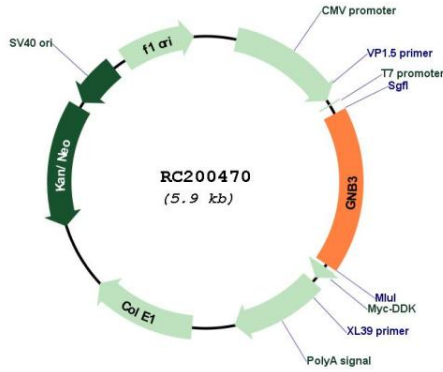
**Protein Families:** Druggable Genome

**Protein Pathways:** Chemokine signaling pathway, Taste transduction

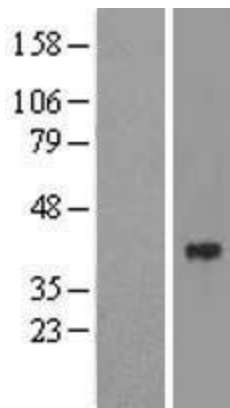
**MW:** 37.3 kDa

**Gene Summary:** Heterotrimeric guanine nucleotide-binding proteins (G proteins), which integrate signals between receptors and effector proteins, are composed of an alpha, a beta, and a gamma subunit. These subunits are encoded by families of related genes. This gene encodes a beta subunit which belongs to the WD repeat G protein beta family. Beta subunits are important regulators of alpha subunits, as well as of certain signal transduction receptors and effectors. A single-nucleotide polymorphism (C825T) in this gene is associated with essential hypertension and obesity. This polymorphism is also associated with the occurrence of the splice variant GNB3-s, which appears to have increased activity. GNB3-s is an example of alternative splicing caused by a nucleotide change outside of the splice donor and acceptor sites. Alternative splicing results in multiple transcript variants. Additional alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Jul 2014]

Product images:



Circular map for RC200470



Western blot validation of overexpression lysate (Cat# [LY400761]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200470 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).