

## Product datasheet for RC221491

### GNB5 (NM\_016194) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GNB5 (NM_016194) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GNB5
Synonyms:	GB5; gbeta5; IDDCA; LADCI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221491 representing NM_016194 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGTGATCAGACCTTTCTCGTTAATGTATTTGGCTCATGTGACAAATGTTTCAAACAACGAGCTCTGA  
GACCAGTTTTCAAGAAGTCTCAACAACCTCAGCTACTGTTCAACATGTGCAGAAATATGGCAACCGAGGG  
GCTGCACGAGAACGAGACGCTGGCGTCGCTGAAGAGCGAGGCCGAGAGCCTCAAGGGCAAGCTGGAGGAG  
GAGCGAGCCAAGCTGCACGATGTGGAGCTGCACCAGTGGCGGAGCGGGTGGAGGCCCTGGGGCAGTTTG  
TCATGAAGACCAGAAGGACCCCTCAAAGGCCACGGGAACAAAGTCTGTGCATGGACTGGTCAAAGATAA  
GAGGAGGATCGTGAGCTCGTACAGGATGGGAAGGTGATCGTGTGGGATTCCTTACCACAAACAAGGAG  
CACGCGGTACCATGCCCTGCACGTGGGTGATGGCATGTGCTTATGCCCATCGGGATGTGCCATTGCTT  
GTGGTGGTTTGGATAATAAGTGTCTGTGTACCCCTTGACGTTTGACAAAAATGAAAACATGGTGCCAA  
AAAGAAGTCTGTTGCTATGCACACCAACTACCTGTGCGCCTGCAGCTTACCAACTCTGACATGCAGATC  
CTGACAGCGAGCGCGATGGCACATGTGCCCTGTGGGACGTGGAGAGCGGGCAGCTGCTGCAGAGCTTCC  
ACGGACATGGGGCTGACGTCCTCTGCTTGGACCTGGCCCCCTCAGAACTGGAACACCTTCGTGTCTGG  
GGGATGTGACAAGAAAGCCATGGTGTGGACATGCGCTCCGGCCAGTGCCTGCAGGCCTTGAACACAT  
GAATCTGACATCAACAGTGTCCGGTACTACCCAGTGGAGATGCCTTTGCTTCAGGGTCAAGTACGCTA  
CGTGTGCGCTCTATGACCTGCGGGCAGATAGGGAGGTTGCCATCTATTCCAAGAAAGCATCATATTTGG  
AGCATCCAGCGTGGACTTCTCCCTCAGTGGTCCGCTGCTGTTTGTGGATACAATGATTACACTATCAAC  
GTCTGGGATGTTCTCAAAGGGTCCCGGTCTCCATCCTGTTTGGACATGAAAACCGGTTAGCACTCTAC  
GAGTTTCCCCGATGGGACTGCTTTCTGCTCTGGATCATACCCCTCAGAGTCTGGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC221491 representing NM\_016194  
Red=Cloning site Green=Tags(s)

MCDQTFLLVNVFGSCDKCFKQRALRPVFKKSQQLSYCSTCAEIMATEGLHENETLASLKSEAESLKGKLEE  
 ERAKLHDVELHQVAERVEALGQFVMKTRRTLKGHGKVKLMDWCKDKRRIVSSSQDGKVIWDSFTTNKE  
 HAVTMPCTWVMACAYAPSGCAIACGGLDNKCSVYPLTFDKNENMAAKKKSAMHTNYLSACSFTNSDMQI  
 LTASGDGTCALWDVEGQLLQSFHGHGADVLCCLDLAPSETGNTFFVSGGCDKKAMVWDMRSGQCQVAFETH  
 ESDINSVRYYPGDAFASGSDDATCRLYDLRADREVAIYSKESIIFGASSYDFSLSGRLLFAGYNDYITIN  
 VWDVLKGSRSVILFGHENRVSTLRVSPDGTAFCSGSDHTLRVWA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8057\\_a05.zip](https://cdn.origene.com/chromatograms/mk8057_a05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_016194

**ORF Size:** 1185 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\\_016194.4](#)

**RefSeq Size:** 3084 bp

**RefSeq ORF:** 1188 bp

**Locus ID:** 10681

**UniProt ID:** [O14775](#)

**Cytogenetics:** 15q21.2

**Domains:** WD40

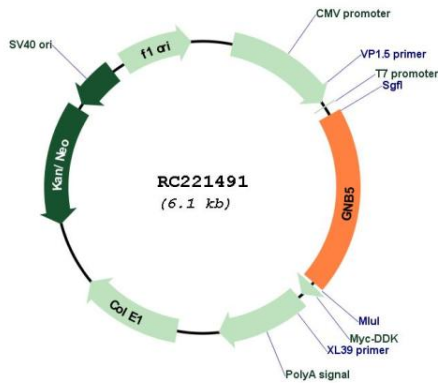
**Protein Families:** Druggable Genome

**Protein Pathways:** Chemokine signaling pathway

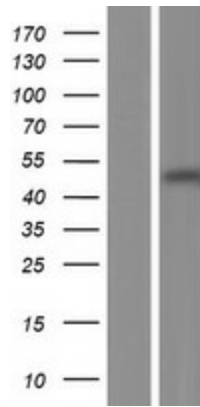
**MW:** 43.4 kDa

**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. Beta subunits are important regulators of alpha subunits, as well as of certain signal transduction receptors and effectors. Alternatively spliced transcript variants encoding different isoforms exist. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC221491



Western blot validation of overexpression lysate (Cat# [LY414128]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221491 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).