

## Product datasheet for **MR201076**

### **Ngb (NM\_022414) Mouse Tagged ORF Clone**

#### Product data:

Product Type: Expression Plasmids  
Product Name: Ngb (NM\_022414) Mouse Tagged ORF Clone  
Tag: Myc-DDK  
Symbol: Ngb  
Mammalian Cell Selection: Neomycin  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
ORF Nucleotide Sequence: >MR201076 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCGCCCGGAGTCAGAGCTGATCCGGCAGAGCTGGCGGGTAGTGAGCCGAGCCCTCTGGAACATG  
GCACTGTCCTGTTTCGCCAGGCTCTTCGCCCTGGAACCCAGCCTGCTGCCTCTCTCCAGTACAATGGCCG  
CCAGTTCTCCAGCCCTGAGGACTGTCTCTCCTCCAGAATTCCTGGACCACATTAGGAAGGTGATGCTA  
GTGATTGATGCTGCAGTGACCAACGTGGAGGACCTGTCTTCATTGGAGGAGTACCTGACCAGCTTGGCA  
GGAAGCATCGGGCAGTGGGAGTGAGGCTCAGCTCCTTCTCGACAGTAGGCGAGTCCCTGCTACATGCT  
GGAGAAGTGCCTGGTCCCGACTTTACACCAGCTACAAGGACCGCTGGAGCCGACTCTACGGAGCTGTG  
GTGCAAGCCATGAGCCGAGGCTGGGATGGGGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201076 protein sequence  
Red=Cloning site Green=Tags(s)

MERPESELIRQSWRVVSRSPLEHGTVLFARLFALEPSLLPLFQYNGRQFSSPEDCLSSPEFLDHIRKVML  
VIDAAVTNVEDLSSLEEYLSLGRKHRAVGVRLSSFSTVGESLLYMLEKCLGPDFTPATRTAWSRLYGAV  
VQAMSRGWDGE

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



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**Cloning Scheme:**



**ACCN:** NM\_022414

**ORF Size:** 456 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](mailto: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:**

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\\_022414.2](#), [NP\\_071859.1](#)

**RefSeq Size:** 1630 bp

**RefSeq ORF:** 456 bp

**Locus ID:** 64242

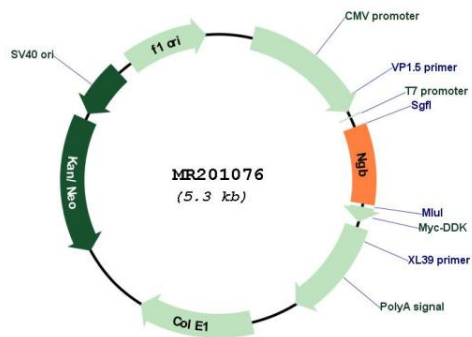
**UniProt ID:** [Q9ER97](#)

**Cytogenetics:** 12 D2

**MW:** 17 kDa

**Gene Summary:** Involved in oxygen transport in the brain. Hexacoordinate globin, displaying competitive binding of oxygen or the distal His residue to the iron atom. Not capable of penetrating cell membranes. The deoxygenated form exhibits nitrite reductase activity inhibiting cellular respiration via NO-binding to cytochrome c oxidase. Involved in neuroprotection during oxidative stress. May exert its anti-apoptotic activity by acting to reset the trigger level of mitochondrial cytochrome c release necessary to commit the cells to apoptosis. [UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR201076