

## Product datasheet for **RR216118**

### Ngf (NM\_001277055) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ngf (NM\_001277055) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ngf  
**Synonyms:** beta-NGF; Ngfb  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RR216118 representing NM\_001277055  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCATGTTGTTCTACACTCTGATCACAGCGTTTTTTGATCGGCGTACAGGCAGAACCCTACACAGATA  
GCAATGTCCCAGAGGGGAGACTCTGTCCCTGAAGCCCACTGGACTAACTTCAGCATTCCCTTGACACAGC  
CCTCCGCAGAGCCCGCAGTGCCCTGCTGAACCAATAGCTGCCCGTGTGACAGGGCAGACCCGCAACATC  
ACTGTGGACCCAACTGTTAAGAAACGGAGACTCCGTTACCCCGCGTGTGTTAGCACCCAGCCTC  
CACCCACCTCTTCGGACTCTGGATTTAGACTCCAGGCCCATGGTACAATCTCCTTCAACAGGACTCA  
CAGGAGCAAGCGCTCATCCACCCACCCAGTCTCCACATGGGGGAGTTTTCAAGTGTGTGACAGTGTCAGT  
GTGTGGTTGGAGATAAGACCACAGCCACGGACATCAAGGGCAAGGAGGTGACAGTGTGGCGAGGTGA  
ACATTAACAACAGTGTATTCAAACAGTATTTTTTTGAGACCAAGTGCCGAGCCCCGAATCCTGTAGAGAG  
TGGATGCCGGGCATTGACTCCAAGCACTGGAAGTCACTGCACCACGACTCACACCTTTGTCAAGGCG  
TTGACAACAGACGACAAACAGGCTGCCTGGAGGTTTCATCAGGATAGATACAGCCTGCGTGTGTGTCTCA  
GCAGGAAGGCTGCAAGAAGAGGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR216118 representing NM\_001277055  
Red=Cloning site Green=Tags(s)

MSMLFYTLITAFLLIGVQAEPYTDNSVPEGDSVPEAHWTKLQHSLDTALRRARSAPAEPIAARVTGQTRNI  
 TVDPKLFKKRRLRSPRVLFSTQPPTSSDTLDLDFQAHGTISFNTRHRSKRSTHPVFMGGEFVSCDSVS  
 VVWGDKTTATDIKGEVTVLGEVNINNSVFKQYFFETKCRAPNPVESGCRGIDSKHWNSYCTTTHTFVKA  
 LTDDKQAAWRIFRIDTACVCLSRKAARRG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3342\\_a05.zip](https://cdn.origene.com/chromatograms/ja3342_a05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001277055

**ORF Size:** 723 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\\_001277055.1](#), [NP\\_001263984.1](#)

**RefSeq Size:** 1075 bp

**RefSeq ORF:** 726 bp

**Locus ID:** 310738

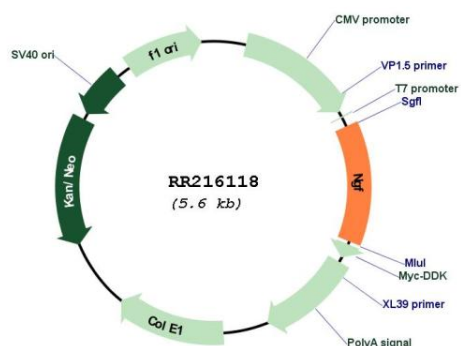
**UniProt ID:** [P25427](#)

**Cytogenetics:** 2q34

**MW:** 27 kDa

**Gene Summary:** Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems. Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades to regulate neuronal proliferation, differentiation and survival (By similarity). The immature NGF precursor (proNGF) functions as ligand for the heterodimeric receptor formed by SORCS2 and NGFR, and activates cellular signaling cascades that lead to inactivation of RAC1 and/or RAC2, reorganization of the actin cytoskeleton and neuronal growth cone collapse. In contrast to mature NGF, the precursor form (proNGF) promotes neuronal apoptosis (in vitro) (By similarity). Inhibits metalloproteinase-dependent proteolysis of platelet glycoprotein VI (By similarity). Binds lysophosphatidylinositol and lysophosphatidylserine between the two chains of the homodimer. The lipid-bound form promotes histamine release from mast cells, contrary to the lipid-free form (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RR216118