

Product datasheet for **MC209030**

Ngf (NM_013609) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ngf (NM_013609) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ngf
Synonyms: beta-NGF; Ngfb
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >MC209030 representing NM_013609
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGTGCCTCAAGCCAGTGAATTAGGCTCCCTGGAGGTGGGACACGGGCAGCATGGTGGAGTTTTGG
 CCTGTGGTCGTGCAGTCCAGGGGGCTGGATGGCATGCTGGACCAAGCTCACCTCAGTGTCTGGGCCAA
 TAAAGTTTTGCCAAGGACGCAGCTTTCTATACTGGCCGAGTGAGGTGCATAGCGTAATGTCCATGTTG
 TTCTACACTCTGATCACTGCGTTTTTATCGGGTACAGGCAGAACCGTACACAGATAGCAATGTCCAG
 AAGGAGACTCTGTCCCTGAAGCCACTGGACTAACTTCAGCATTCCCTTGACACAGCCCTCCGCAGAGC
 CCGCAGTGCCCTACTGCACCAATAGCTGCCCGAGTGACAGGGCAGACCCGCAACATCACTGTAGACCC
 AGACTGTTTAAGAAACGGAGACTCCACTCACCCGTGTGCTGTTTCAGCACCCAGCCTCCACCCACCTCTT
 CAGACACTCTGGATCTAGACTTCCAGGCCATGGTACAATCCCTTTCAACAGGACTCACCGGAGCAAGCG
 CTCATCCACCCACCCAGTCTTCCACATGGGGGAGTTCTCAGTGTGTGACAGTGTGAGTGTGGTTGGA
 GATAAGACCACAGCCACAGACATCAAGGGCAAGGAGGTGACAGTGTGCGCGAGGTGAACATTAACAACA
 GTGTATTCAGACAGTACTTTTTGAGACCAAGTGCCGAGCCTCCAATCCTGTTGAGAGTGGGTGCCGGG
 CATCGACTCCAACACTGGAACCTACTGCACCAGACTCACACCTTCGTCGAAGCGTTGACAACAGAT
 GAGAAGCAGGCTGCCTGGAGTTTCATCCGGATAGACACAGCCTGTGTGTGTGCTCAGCAGGAAGGCTA
 CAAGAAGAGGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_013609



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Insert Size: 924 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 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](#)

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_013609.3](#), [NP_038637.1](#)

RefSeq Size: 1196 bp

RefSeq ORF: 924 bp

Locus ID: 18049

UniProt ID: [P01139](#)

Cytogenetics: 3 45.25 cM

Gene Summary:

Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems (PubMed:20036257). Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades to regulate neuronal proliferation, differentiation and survival (PubMed:22649032). 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 (PubMed:22155786). In contrast to mature NGF, the precursor form (proNGF) promotes neuronal apoptosis (in vitro) (PubMed:20036257). Inhibits metalloproteinase-dependent proteolysis of platelet glycoprotein VI (By similarity). Binds lysophosphatidylinositol and lysophosphatidylserine between the two chains of the homodimer (PubMed:22649032, PubMed:26144237). The lipid-bound form promotes histamine release from mast cells, contrary to the lipid-free form (PubMed:22649032).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (A).