

Product datasheet for **MC219824**

Ngef (NM_019867) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ngef (NM_019867) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ngef
Synonyms:	ephexin; Tims2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF:

>MC219824 representing NM_019867

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGAGCTGCTGGCTGCAGCCTTCAGCGCCGCTGCGCCGTGGACCACGACAGCTCCACCTCGGAGAGCG
ACACGCGGACTCGGCGCGGGACACCTGCCGGGAGCGAGTCACTCCACCCCTGAAAATGGAACCAC
ACCCGAGGAGTGCCAGCCCTCACCGACAGCCCCACACTCTCACGGAGGCCCTGCAGATGATCCATCCC
ATCCCGCCGACTCCTGGAGAAACCTCATTGAACAAATAGGGCTCCTGTATCAAGAGTATAGAGACAAAT
CGACTCTCAAGAAATTGAAACACGGAGGCAGCAGGATGCAGAAAATCCAAGGCAACTCCGATGGTCCCA
GGTTGGGAAGACGCTGGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGCTGGCCAGCCCT
CCTGAGAGGAGAGCTCTGCCTCAGATCTGCCTGCTCAGCAACCCCACTCCAGGTTCAACCTCTGGCAAG
ACCTTCTGAGATCCAGAGCAGTGGCGTCTGGACATTCTCCAGCCGGAGGAGATCAGGTCGAGGAGGC
CATGTTTGTAGTTGGTTACCTCTGAGGCCTCTACTATAAGAGCCTGAACCTGCTGGTGTGCGCACTTCATG
GAGAACGAGCGTCTGAAGAAGATCCTGCATCCATCTGAGGCCACATCCTTTTTCCAATGTCCTGGATG
TCATGGCTGTGAGTGTGAGCGGTTTTTGTGGAGCTAGAGCACCGCATGGAGGAGAATTGTTATCTCGGA
TGTGTGGACATCGTGTACCGTTACGCAGCTGATCACTTCTCGGTCTATATCACTTACGTACGTAACCAG
ACCTACCAGGAAAGGACATACAAGCAGCTCCTACAGGAGAAGGCCGCTTTCGGGAACTGATCGCACAGT
TGGAGCTGGACCCCAAATGCAAGGGCTGCCTTTCTCCTCTCTCATCTTGCCTTCCAGAGGATCAC
GAGACTCAAGTCTGGTCCAGAATATCCTGAAGAGAGTGGAGGAGAGGTCTGAACGTGAAGGCACCGCC
TTGGATGCCACAAGGAGCTAGAAATGGTGTAAAGGCATGCAATGAGGGTGTCCGGAAGATGAGCCGCA
CAGAACAGATGATCAGCATTGAGAAGAAGATGGAGTTCAGATCAAGTCAAGTCAAGTCAAGTCAAGTCAAGT
CCGGTGGCTGCTGAAGCAGGGTGAGCTGCAGCAGATGTCGGGCCCAAGACCTCCCGCACCCCTGCGGACC
AAGAAGCTCTTCAGAGAAATTTACCTCTTCTCTTCAATGACCTGCTGGTGTGATCTGCCGGCAGATCCCTG
GAGACAAGTACCAGTGTGTGTTGATTCGGCCCAAGGGGCCTGCTTCGAGTGGAGGAGCTGGAGGACCAGGG
TCAAACACTGGCTAATGTGTTTCATCTGCGGCTGCTGGAAAATGCAGATGACCGAGAGGCCACCTATATG
CTGAAGGCATCCTCCAGAGCGAGATGAAGCGCTGGATGACCTCACTGGCCCCAACAGGAGGACCAAGT
TTGTATCCTTCACATCTCGGCTGTTGGACTGTCCCAGGTCCAGTGTGTGCACCCGTATGTGCCAGCA
GCCTGATGAACCTGACGCTGGAACGGCAGATATCCTGAACATCCTGGAGAAGACAGAGGATGGGTGGATC
TTTGGTGTGAGCGGCTGCATGACCAGGAGAGGCTGGTTCCCCAGTCCATGACAGAGGAGATCCTGAACC
CCAAGATCCGCTCCAGAACCTCAAGGAATGTTTCCGGGTACATAAGATGGAAGACCCCTCAGCGCAGCCA
GAATAAGGACCGCAGGAAGCTGGGCAGCCGGAATCGTCAATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_019867

Insert Size:

1863 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_019867.2](#), [NP_063920.2](#)

RefSeq Size: 2764 bp

RefSeq ORF: 1863 bp

Locus ID: 53972

UniProt ID: [Q8CHT1](#)

Cytogenetics: 1 44.42 cM

Gene Summary: Acts as a guanine nucleotide exchange factor (GEF) which differentially activates the GTPases RHOA, RAC1 and CDC42. Plays a role in axon guidance regulating ephrin-induced growth cone collapse and dendritic spine morphogenesis. Upon activation by ephrin through EPHA4, the GEF activity switches toward RHOA resulting in its activation. Activated RHOA promotes cone retraction at the expense of RAC1- and CDC42-stimulated growth cone extension.
[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (2) contains a different segment for its 5' UTR and 5' coding region, and lacks other coding region exons, compared to variant 1. The resulting protein (isoform 2) has a shorter and distinct N-terminus when it is compared to isoform 1.