

## Product datasheet for **RC210283**

### NBPF9 (NM\_001037675) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NBPF9 (NM_001037675) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NBPF9
Synonyms:	AE01
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210283 ORF sequence, <b>codon optimized</b> . Due to the complexity of NM_001037675, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGATCTGCC  
GCC**CGGATCGCC**

ATGGTGGTGTCTGCTGGTCCCTGGTCTAGCGAGAAGGCTGAAATGAACATTCTGGAGATCAATGAGAAAC  
TTCGGCCTCAGTTGGCTGAAAACAAGCAGCAGTTCGGAACCTGAAGGAGCGGTGTTTTCTGACCCAGCT  
GGCCGGATTCTGGCCAACCGGCAAAAAGAAGTATAAATATGAGGAGTGTAAAGACCTGATTAATTTATG  
CTGAGAAACGAGAGACAGTTCAAAGAGGAAAAGCTCGCCGAACAGTTGAAGCAGGCTGAAGAAGCTCCGCC  
AGTACAAAGTTCTGGTTCATTACAGGAGCGGGAGCTCACGCAGCTCAAGGAAAACTTCGGGAGGGAAG  
AGATGCCTCTCGCTCCCTCAATGAGCACCTGCAAGCACTGCTTACTCCCAGCAGCCGATAAGTCCCAG  
GGACAAGACCTCCAAGAGCAGCTGGCTGAAGGATGCCGGTTGGCTCAACACCTGGTCCAAAAGCTGAGCC  
CGGAGAATGATGAAGATGAGGACGAAGATGTGCAGGTGGAAGAGGATGAAAAGGTGCTCGAGTCACCTGC  
TCCCCGGAAGTCCAAAAGGCCGAGGAATCTAAAGTTACTGAGGACTCCCTTGAGGAGTGCACAATAACA  
TGTAGCAACAGTCACGGCCCTGCGATTCCAATCAGCCTCACAAGAACATAAAAAATTACATTGAAAGAGG  
ACGAGGTGAACCTCAACTCTGGTGGTGGACCGCAAAGCTCCCACGACGAGTGTCAAGATGCCTTGAACAT  
CTTGCCTGTTCTGGACCTACCAGTTCGCAACTAACGTCAGTATGGTGGTTTCCGCGGGCCCTCTCTCT  
TCTGAGAAGGCCGAGATGAATATCTGGAGATCAATGAGAAGTTGCGACCTCAGTTGGCAGAGAAGAAAC  
AGCAATTCGCAATCTCAAGGAGAAATGTTTTCTGACCCAGCTCGCAGGGTTCCTTGCCAATCAGCAAAA  
CAAGTATAAGTACGAGGAATGTAAGGACCTGATCAAATTCATGCTGAGAAATGAACGGCAGTTTAAAGAA  
GAGAAACTCGCCGAGCAGCTGAAGCAGGCAGAGGAGCTTAGGCAGTATAAAGTCCTTGTTATGCCCAGG



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AAAGAGAGCTCACCCAACCTGCGCGAGAAGCTGAGGGAAGGCAGGGACGCATCCCCGCTCTCTTAACGAGCA  
TCTGCAGGCCCTTCTGACACCTGATGAGCCAGATAAGTACAGGGCCAAGACCTGCAGGAGCAACTCGCT  
GAAGGCTGCCGACTCGCCCAACATTTGGTACAGAAAGCTGTCTCCAGAAAATGATAACGACGACAATGAGG  
ATGTGCAGGTAGAAGTGGCAGAAAAGGTGCAGAAATCTAGTGCGCCACGAGAGATGCAGAAAAGCTGAGGA  
GAAAGAAGTACCAGAGGATAGCCTCGAGGAGTGCAGCAATCACCTATAGCAATAGCCACGGTCTTATGAT  
TCTAATCAACCACACAGAAAAGACCAAAAACACGTTTCGAGGAAGATAAAGTGGACTCCACACTCATCGGGA  
GTTCTCCACCGTGGAGAGGGAGGATGCAGTGCACATAATCCCTGAGAACGAGTCCGACGATGAGGAAGA  
AGAGGAGAAAAGGACCAGTTAGTCCCTAGAAAATCTCCAGGAGTCAAGAAAGAGGAGGTTCCACAGGAATCT  
TGGGATGAGGGCTACTCAACTCCTAGCATAACCCCCGAGATGCTGGCCTCTATAAGTCATATTCTAGTA  
CATTCCACTCCCTCGAGGAGCAGCAGGTCTGTATGGCCGTTGATATTGGCAGGCATAGGTGGGATCAGGT  
GAAAAAAGAACCAAGAAGCGACCCGGGCCCGGCTGAGCCGCGAACTCCTTGACGAGAAAAGGCCCTGAA  
GTGTTGCAAGATAGCCTTACCGGTGCTACAGCACCCCAAGCGGGTGCCTGGAGCTCACAGATAGTTGCC  
AACCTTACCGAAGCGCTTTTACGTACTCGAGCAGCAGAGGGTCCGACTGGCCGTCGATATGGATGAGAT  
CGAAAAATACCAGGAGGTTGAAGAGGATCAGGATCCTAGTTGCCGAGACTCTCCCGCAACTGCTTGTAT  
GAGAAAGAACCCGAAGTCTGCAGGATTCTCTGGCCCGTGGTACTCTACGCCCTCTGGATATCCTGAGC  
TTCAGACCTTGGTCAACCTTACTCATCTGCAGTGTATAGTCTCGAGGAACAGTACTGGGACTCGCTCT  
CGACCTCGATAGAATAAAGAAAAGACCAGGAAGAAGAGGAAGATCAGGGCCACCCCTGCCCTCGGCTGAGC  
CGGGAGCTCCTGGAGGTGGTGAACCTGAAGTCTGCAGGACAGTCTGGATCGCTGCTATTCAACGCCCA  
GCTCCTGTCTTGAACAGCCCGATTCTTGGCAGCCTTACGGGAGTTCTTTTTATGCACTCGAGGAGAAAACA  
TGTGGGGTTCTCACTCGATGTCCGGGAGATTGAAAAAAAAGGAAAGGAAAAAACGCCGGGGCCGACGG  
AGCAAGAAGGAGAGGCGGCGAGGCCGGAAGGAAGGGGAAGAAGACCAGAATCCCCCTGTCCACGGCTGA  
ATGGCGTTCTGATGGAAGTGAAGAGCCGAAGTCTCCAGGATAGCCTTGTATGGTTGCTATTCCACTCC  
TTCAATGTACTTTGAGCTTCTGACAGCTTTCAGCATTATCGCAGCGTTTTTACTCATTGAGGAGCAG  
CACATTTCTTCCGCTGTACGTGGACAACCCGGTTTTTACCCTGACGGTGACCAGCTTGACACTGGTTT  
TCCAGATGGAAGTATATTTCCCCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210283 representing NM\_001037675

Red=Cloning site Green=Tags(s)

MVVSAGPWSSEKAEMNILEINEKLRPQLAENKQQFGNLKERCFLTQLAGFLANRQKKYKYECKDLIKFM  
LRNERQFKKEKLAQLKQAEELRQYKVLVHSQERELTQLKEKLEGRDASRSLNEHLQALLTPDEPKSQ  
GQDLQEQLAEGCRLAQHLVQKLSPENDEDEDEDVQVEDEKVLSPAPREVQKAEESKVTEDSLEECIT  
CSNSHGPCDSNQPHKNIKITFEEDVNSTLVVDRESSHDECQDALNILPVPGPTSSATNVMVVSAGPLS  
SEKAEMNILEINEKLRPQLAEKKQQFRNLKEKFLTQLAGFLANQQNKYKYECKDLIKFMLRNERQFKE  
EKLAQLKQAEELRQYKVLVHAQERELTQLREKLEGRDASRSLNEHLQALLTPDEPKSQGQDLQEQLA  
EGCRLAQHLVQKLSPENDNDNEDVQVEVAEKVQKSAPREMOKAEEKEVPEDSLEECITYSNSHGOPYD  
SNQPHRKTKITFEEDKVDSTLIGSSSHVEREDAVHIIPENESDDEEEEEKGPVSPRNLQSEEEEEVPQES  
WDEGYSTPSIPPEMLASYKSYSSTFHSLLEEQQVCMVAVDIGRHRWDQVKKEDQEATGPRLSRELLDEKGPE  
VLQDSLRCYSTPSGCLLETDSQPYRSFYVLEQQRVGLAVDMDEIEKYQEVEEDQDPSPRLSRELLD  
EKEPEVLQDSLGRWYSTPSGYPELQDLQPYSSAVYSLEEQLGLALDLRIKKDQEEEDQGPSPRLS  
RELLEVEPEVLQDSLRCYSTPSSCLEQPDWQPYGSSFYALEEKHVGFSLDVGEIEKKGKGGKRRGR  
SKKERRRRGRKEEEDQNPPCPRLNGVLMEEVEPEVLQDSLDCYSTPSMYFELPDSFQHYRSVFYSFEEQ  
HISFALYVDNRFFTLTVTSLHLVFQMEVIFPQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001037675

**ORF Size:** 2826 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\\_001037675.1](#), [NM\\_001037675.2](#), [NM\\_001037675.3](#), [NP\\_001032764.1](#)

**RefSeq Size:** 4527 bp

**RefSeq ORF:** 2829 bp

**Locus ID:** 400818

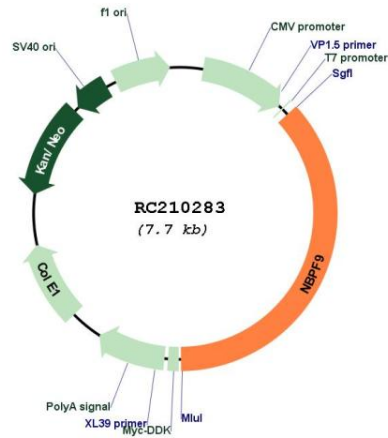
UniProt ID: [PODPF3](#)

Cytogenetics: 1q21.2

MW: 108.6 kDa

**Gene Summary:** This gene is a member of the neuroblastoma breakpoint family (NBPF) which consists of dozens of recently duplicated genes primarily located in segmental duplications on human chromosome 1. This gene family has experienced its greatest expansion within the human lineage and has expanded, to a lesser extent, among primates in general. Members of this gene family are characterized by tandemly repeated copies of DUF1220 protein domains. Gene copy number variations in the human chromosomal region 1q21.1, where most DUF1220 domains are located, have been implicated in a number of developmental and neurogenetic diseases such as microcephaly, macrocephaly, autism, schizophrenia, cognitive disability, congenital heart disease, neuroblastoma, and congenital kidney and urinary tract anomalies. Altered expression of some gene family members is associated with several types of cancer. This gene family contains numerous pseudogenes. [provided by RefSeq, Apr 2013]

**Product images:**



Circular map for RC210283