

Product datasheet for RC225651

Neuro D4 (DPF1) (NM_001135155) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neuro D4 (DPF1) (NM_001135155) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Neuro D4
Synonyms:	BAF45b; NEUD4; neuro-d4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225651 representing NM_001135155 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCGCCTCAGCGCCCGCCGACCGCTGGGAGGACCGACCCGGCGGGGACCTGCTGGGGCAGGACC
CGGGGAGCAAGATGGCCACTGTCATCCCTGGCCCCCTGAGCCTAGGCGAGGACTTCTACCGCAGGCCAT
CGAGCACTGCCGAGTTACAACGCGCGCTGTGCGCCGAGCGCAGCCTGCGACTGCCCTTCTCGACTCG
CAGACCGCGTGGCCAGAACAACCTGCTACATCTGGATGGAGAAGACCCACCGCGGGCCGGTGGCC
CGGGACAGATTTACACGTACCCCGCCGCTGTTGGAGGAAGAAACGGAGACTCAACATCTGGAGGACCC
CAGACTCAGGCCCTGCGAGTACAAGATCGACTGTGAAGCACCCCTGAAGAAGGAGGGTGGCCTCCGGAA
GGCCCGTCTCGAGGCTCTACTGTGTGACAGACGGGGAGAAGAAGATTGAGCTGAAGGAGGAGAGA
CCATTATGGACTGTCAGAAACAGCAGTTGCTGGAGTTTCCGCATGACCTCGAGGTGGAAGACTTGGAGGA
TGACATTTCCAGGAGGAAGAACAGGGCCAAAGGAAAGGCATATGGCATCGGGGTCTCCGGAAACGCCAG
GACACCGCTTCCCTGGAGGACCGAGACAAGCCGTATGTCTGTGATATCTGTGGAAACGGTATAAGAACC
GGCCGGGGCTCAGCTACCACTACACCCACACCCACCTGGCCGAGGAGGAGGGGAGGAGAACGCCGAACG
CCACGCCCTGCCCTTCCACCGAAAAACAACCATAAACAGTTTTACAAGAATTGGCCTGGTCCCTGAG
GCACAAAGGAAACACACAGCCAAGAAGGGCCCGACGGCACTGTATCCCCAACGGCTACTGTGACTTCT
GCCTGGGGGCTCCAAGAAGACGGGTGTCCCGAGGACCTCATCTCTGTGCGGACTGTGGGCGATCAGG
ACACCCCTCGTGTTTACAATTACGCGTGAACATGACGGCAGCCGTGCGGACCTACCGCTGCGAGTGCATC
GAGTGAAATCCTGCAGCCTGTGCGGAACCTCCGAGAACGACGACCAGCTGCTGTTTTGTGATGACTGCG
ATCGGGTTACCACATGTACTGCCTGAGTCCCCCATGGCGGAGCCCCGGAAGGAGCTGGAGCTGTCA
CCTCTGTCTCCGGCACCTGAAGGAAAAGGCTTCTGCTTACATCACCTCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC225651 representing NM_001135155
Red=Cloning site Green=Tags(s)

MGGLSARPTAGRTDPAGTCWQDPGSKMATVIPGPLSLGEDFYREAIEHCRSYNARLCAERSLRPLFLDS
 QTGVAQNNCYIWMEKTHRGPLAPGQIYTYPARCWRKKRRLNILEDPRLRPCEYKIDCEAPLKKEGGLPE
 GPVLEALLCAETGEKKIELKEEETIMDCQKQQLLEFPHDLEVEDLEDDIPRRKNRAKGYGIGGLRKRQ
 DTASLEDRDKPYVCDICGKRYKNRPGLSYHYTHHLAEEEEGEENAERHALPFHRKNNHKQFYKELAWVPE
 AQRKHTAKKAPDGTVIPNGYCDFCLGGSKKTGCPEDLISCADCGRSGHPSCLQFTVNMTAAVRTYRWQCI
 ECKSCSLCGTSENDDQLLFCDDCDRGYHMYCLSPMAEPPPEGWSCHLCLRHLKEKASAYITLT

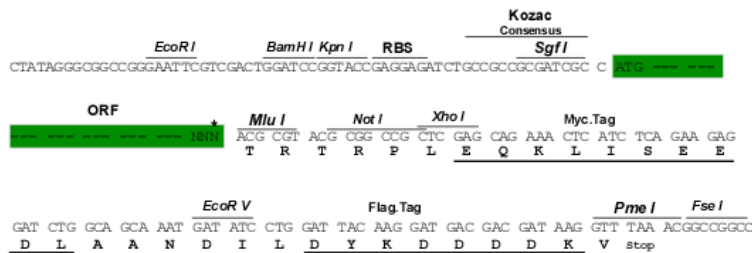
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8034_g01.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_001135155

ORF Size: 1242 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_001135155.2](#), [NP_001128627.1](#)

RefSeq ORF: 1164 bp

Locus ID: 8193

UniProt ID: [Q92782](#)

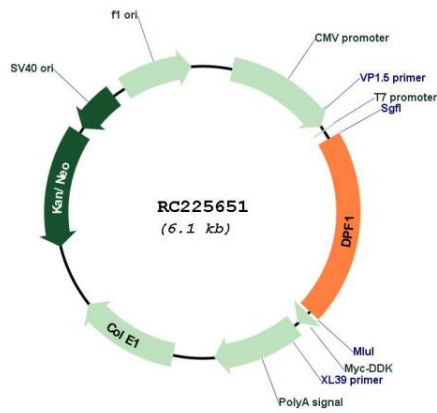
Cytogenetics: 19q13.2

Protein Families: Druggable Genome, Transcription Factors

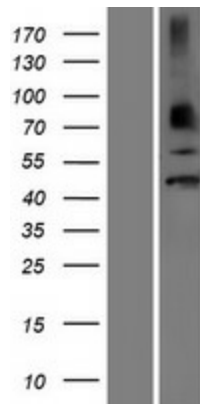
MW: 46.6 kDa

Gene Summary: May have an important role in developing neurons by participating in regulation of cell survival, possibly as a neurospecific transcription factor. Belongs to the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth (By similarity).[UniProtKB/Swiss-Prot Function]

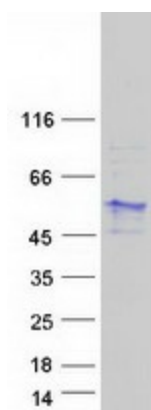
Product images:



Circular map for RC225651



Western blot validation of overexpression lysate (Cat# [LY427564]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225651 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DPF1 protein (Cat# [TP325651]). The protein was produced from HEK293T cells transfected with DPF1 cDNA clone (Cat# RC225651) using MegaTran 2.0 (Cat# [TT210002]).