

## Product datasheet for **SC117249**

### Neuro D4 (DPF1) (NM\_004647) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neuro D4 (DPF1) (NM_004647) Human Untagged Clone
Tag:	Tag Free
Symbol:	Neuro D4
Synonyms:	BAF45b; NEUD4; neuro-d4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004647, the custom clone sequence may differ by one or more nucleotides

```
ATGGGCGGCCTCAGCGCCCGCCCGACCGCTGGGAGGACCGACCCGGCGGGGACCTGCTGGGGCAGGACC  
CGGGGAGCAAGATGGCCACTGTCATCCCTGGCCCCCTGAGCCTAGGCGAGGACTTCTACCGCAGGCCAT  
CGAGCACTGCCGAGTTACAACGCGCGCCTGTGCGCCGAGCGCAGCCTGCGACTGCCCTTCTCGACTCG  
CAGACCGGCGTGGCCAGAACAAGTGTACATCTGGATGGAGAAGACCCACCGCGGGCCGGGTTGGCCC  
CGGGACAGATTTACACGTACCCCGCCGCTGTTGGAGGAAGAACGGAGACTCAACATCCTGGAGGACCC  
CAGACTCAGGCCCTGCGAGTACAAGATCGACTGTGAAGCACCCCTGAAGAAGGAGGGTGGCCTCCCGGAA  
GGCCCGTCTCGAGGCTCTACTGTGTGCAGAGACGGGGGAGAAGAAGATTGAGCTGAAGGAGGAGGAGA  
CCATTATGGACTGTCAGAAACAGCAGTTGCTGGAGTTTCCGCATGACCTCGAGGTGGAAGACTTGGAGGA  
TGACATTTCCAGGAGGAAGAACAGGGCCAAAGGAAAGGCATATGGCATCGGGGTCTCCGGAAACGCCAG  
GACACCGCTTCCCTGGAGGACCGAGACAAGCCGTATGTCTGTGATAAGTTTTACAAGAATTGGCCTGGG  
TCCCTGAGGCACAAGGAAACACACAGCCAAGAAGGCGCCCGACGGCACTGTCATCCCCAACGGCTACTG  
TGACTTCTGCCTGGGGGCTCCAAGAAGACGGGTGTCCCGAGGACCTCATCTCCTGTGCGGACTGTGGG  
CGATCAGGACACCCCTCGTGTTTACAATTCACGGTGAACATGACGGCAGCCGTGCCGACCTACCGCTGGC  
AGTGCATCGAGTGCAAACTCCTGCAGCCTGTGCGGAACCTCCGAGAACGACGGTGCCAGCTGGGCGGGTCT  
CACCCCCAGGACCAGCTGCTGTTTTGTGATGACTGCGATCGGGGTTACCACATGTACTGCCTGAGTCCC  
CCCATGGCGGAGCCCCCGAAGGGAGCTGGAGCTGTACCTCTGTCTCCGGCACCTGAAGGAAAAGGCTT  
CTGCTTACATCACCTCACCTAG
```



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004647 unedited  
 GCAATTTGTAATACGACTCACTATAGGGCGGCCGGAATCGCACGAGGGGCGGCGCAGGC  
 CGGGCTGGGCCCGCGCGCGGGCAGCGCGCCCCGGGCGGAGGCGGCCAGCCGAGCG  
 GGCCATGGCCACCGCCATTACAGAACCCGCTCAAGTCCCTAGGCGAGGACTTCTACCGCA  
 GGCCATCGAGACTGCCGAGTTACAACGCGCCCTGTGCGCCGAGCGCAGCCTGCGACT  
 GCCCTTCTCGACTCGCAGACCGCGCTGGCCAGAACAACTGCTACATCTGGATGGAGAA  
 GACCCACCGCGGGCCGGTTTGGCCCCGGGACAGATTTACACGTACCCCGCCCGCTGTTG  
 GAGGAAGAAACGAGACTCAACATCCTGGAGGCCAGACTCAGGCCCTGCGAGTACAA  
 GATCGACTGTGAAGCACCCCTGAAGAAGGAGGGTGGCCTCCCGAAGGGCCGGTCTCGA  
 GGCTCTACTGTGTGACAGAGACGGGGAGAAGAAGATTGAGCTGAAGGAGGAGGAGACCAT  
 TATGGACTGTGAGAACAGCAGTTGCTGGAGTTTCCGCATGACCTCGAGGTGGAAGACTT  
 GGAGGATGACATCCCAGGAGGAAGAACAGGGCCAAAGGAAAGGCATATGGCATCGGGGG  
 TCTCCGAAACGCCAGGACCGCTTCCCTGGAGGACCGAGACAAGCCGTATGTCTGTGA  
 TATCTGTGGAAACGGTATAAGAACCGGNCGGNGCTCAGTACCCTACACCCACACCAC  
 CTGNCCCAGGAAGGAGGGGAGGAAAACANCCNAAACGCACGCCCTGGCCTTTCACCG  
 GNAACAACCATAAACAGTTTTACAAAAGAATTGCCTTGGGTCCCTTGAGGCACANAGGA  
 AACCCCACTCCAAAAGCGCTCGGACGGCACTGTTATTCCCCACGGCTACTGTGACTT  
 TCTGCCTGGGGGGCTCCAAAAG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_004647 unedited  
 NATTTGTTTTGGACCGGGACGCAATCTAGNGATCGGTTTTTTTTTTTTTTTTTA  
 TTTTGTCTTTTTCTTAGAAAAGGCTCTGTCCATGCCCTGGCTGGCACCACCACCC  
 CATGCCCGCCAGAGGCGGGATGGCTTTGAGGGGAGAAGCCCTGGTGTCCATTTGCC  
 AAGGGACAGAGAGGGAGGGAGGGAGGGAGGCCCTGGCCGGGCCACCCACCCACAGGG  
 CAGACATTCCACCTGCCAGAGGGGAGGCCCTCCCTTCCCTCCCTCCCTCCCTCCCT  
 CCCCTCCCTTCCCTTCCCTTCTCCTCCCTCCCTCCCTCCCTCCCTCCCTCCCTCCCT  
 CTCTCCCCCTCCTCCTCCCTCCCTCCCTCCCTCCCTCCCTCCCTCCCTCCCTCCCT  
 CCCCCCCCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CCCCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CCTCACCTCCCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 TTTCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CCCCCCTTCTTCCCTTCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CCTTTTTCTCCTCCTTCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CTTTTTCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CTTTCCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 CCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCTCCT  
 TCCCN

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_004647

**Insert Size:**

1570 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\\_004647.1](#), [NP\\_004638.1](#)

**RefSeq Size:** 1421 bp

**RefSeq ORF:** 1062 bp

**Locus ID:** 8193

**UniProt ID:** [Q92782](#)

**Cytogenetics:** 19q13.2

**Domains:** PHD

**Protein Families:** Druggable Genome, Transcription Factors

**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]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the coding region, compared to variant 4. The encoded protein (isoform b) is shorter, compared to isoform d. Sequence Note: The RefSeq transcript and protein were derived from transcript and genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.