

## Product datasheet for **RC213929**

### PHF21A (NM\_001101802) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHF21A (NM_001101802) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PHF21A
Synonyms:	BHC80; BM-006; IDDBCS; NEDMS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC213929 representing NM\_001101802  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTTGCAGACTCTACAGGAGGCTCTTAAAGTGAAATTCAGGTTACCAGAAAACGGTTGCTCAAA  
 TGAAGCAGGATCCACAGAATGCTGACTTAAAGAAACAGCTTCATGAACTCCAAGCCAAAAACACAGCTTT  
 GAGTGAGAAAACAGAAAAGAGTAGTTGAACAGCTACGGAAGAACCCTGATAGTAAAGCAAGAACAACCGGAC  
 AAGTTCCAAATACAGCCATTGCCACAATCTGAAAACAAACACAAACAGCACAGCAGCAACCACTACAGC  
 AACTACAACAACAGCAGCAGTACCACCACCACCGCCAGCAGTCACTGCAGCCTCTCCCAACCTGAC  
 TGCTTACAGAAGACTGTAACACAGCTTCTATGATTACCACAAAGACACTACCTCTCGTCTTGAAAGCA  
 GCAACTGCGACCATGCCTGCCTCTGTGGTGGGCCAGAGACCTACCATTGCTATGGTGACCGCCATCAACA  
 GTCAGAAGGCTGTGCTCAGCACTGATGTGCAGAACACACCAGTCAACCTCCAGACGTCTAGTAAGGTCAC  
 TGGGCCTGGGGCAGAGGCTGTCCAAATTGTGGCAAAAAACACAGTCACTCTGGTTCAGGCAACACCTCCT  
 CAGCCCATCAAAGTACCACAGTTTATCCCCCTCTAGACTCACTCCACGTCCAAACTTTCTTCCACAGG  
 TTCGACCAAGCCTGTGGCCAGAAATAACATTCCTATTGCCCCAGCACCACTCCCATGCTCGCAGCTCC  
 TCAGCTTATCCAGAGGCCGTGCTGACTGACCAAGTTACCCCCACAACCTTCCACATCCAGAAATTC  
 ATCCACCCCGTCCGTGTCGTCATGGGCAGACTGCAACCATAGCCAAAACGTTCCCATGGCCAGCTCA  
 CCAGCATTGTGATAGCTACTCCAGGGACCAGACTCGCTGGACCTCAAAGTACAGCTTAGCAAGCAAG  
 TCTTGA AAAACAGACAGTTAAATCTCACACAGAAAACAGATGAGAAAACAACAGAGAGCCGACCATCACC  
 CCACCTGCTGCACCAACCAAAACGGGAGGAGAACCTCAGAACTGCCTTATGGTGTCTTAGGGT  
 TGGTAACACATGACCATCTAGAAGAAATCCAAGCAAGAGGCAAGAGCGAAAAAGAAACAACAGCAAA  
 TCCGGTCTACAGTGGAGCAGTCTTTGAGCCAGAGCGTAAGAAGAGTGCAGTGACATACCTAAACAGCACA  
 ATGCACCTGGGACCCGGAAGAGAGGTCGTCCTCCAAAATACAATGCAGTGTGGGTTTGGAGCCCTTA  
 CCCCACATCCCCCAATCCAGTCATCCTGACTCCCCTGAAAATGAAAAGACAGAGACCACATTCACCTT  
 CCCTGCACCTGTTGAGCCTGTGTCCTGCCAGCCCCACCTCCACAGACGGTGATATTCATGAGGATTTT  
 TGCAGCGTTTGCAGAAAAGTGGCCAGTACTGATGTGCGACACATGTTCCCGTGTATATCATTGGACT  
 GCTTAGACCCCTCTGAAAACAATTCCAAGGGCATGTGGATCTGTCCAGATGTCAGGACCAGATGCT  
 GAAGAAGGAAGAAGCAATCCATGGCCTGGAATTTAGCAATTGTTTCCTATATTGCCTACAAAGCA  
 GCAAAAGAAGAAGAGAAACAGAAGTTACTTAAATGGAGTTCAGATTTAAACAAGAACGAGAACAACACTAG  
 AGCAAAAGGTGAAACAGCTCAGCAATCCATAAGTAAATGCATGGAAATGAAGAACCATCCTGGCCCG  
 GCAGAAGGAGATGCACAGCTCCCTGGAGAAGGTA AACAGCTGATTCGCCTCATCCACGGCATCGACCTC  
 TCCAAACCTGTAGACTCTGAGGCCACTGTGGGGCCATCTCCAATGGCCCGGACTGCACCCCCCTGCCA  
 ATGCCGCCACCTCCACGCCGGCCCTTCCCCCTCTCCAGAGCTGCACAGCGAACTGTAACCAGGGGGA  
 AGAGACTAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213929 representing NM\_001101802  
 Red=Cloning site Green=Tags(s)

MELQTLQEALKVEIQVHQKLVAQMKQDPQNADLKKQLHELQAKITALSEKQKRVVEQLRKNLIVKQEQPD  
 KFQIQPLPQSENKLOTAQQQLQQLQQQQYHHHHAQQSAAASPNTASQKTVTTASMITTKLPLVLKA  
 ATATMPASVVGQRPTIAMVTAINSQKAVLSTDVQNTPVNLQTSKVTGPGAEAVQIVAKNTVTLVQATPP  
 QPIKVPQFIPPPRLTPRPNFLPQVRPKPVAQNNIPIAPAPPMLAAPQLIQRVMLTKFTPTTLPTSQNS  
 IHPVRVNGQTATIAKTFPMAQLTSIVIATPGTRLAGPQTVQLSKPSLEKQTVKSHETDEKQTESRTIT  
 PPAAPKPKREENPQKLAFMVSLGLVTHDHLEEQSKRQERKRRTTANPVYSGAVFEPERKKSAVTYLNST  
 MHPGTRKRGRPPKYNAVLGFGALTPTSPQSSHPDSPENEKTETTFTPAPVQPVSLSPSTSTDGDIHEDF  
 CSVCRKSGQLMCDTCSRYYHLDCDPLPKTIPKGMWICPRQDQMLKKEEAIPWPGTLAIVHSYIAYKA  
 AKEEEKQKLLKWSSDLKQEREQLEQKVKQLSNSISKMEMKNTILARQKEMHSSLEKVKQLIRLIHGIDL  
 SKPVDSEATVGAI SNGPDCTPPANAATSTPAPSPSSQSC TANCNQGETK

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2903\\_h07.zip](https://cdn.origene.com/chromatograms/mg2903_h07.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001101802

ORF Size: 2040 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](mailto: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](#)

**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\\_001101802.3](#)

**RefSeq Size:** 7332 bp

**RefSeq ORF:** 2043 bp

**Locus ID:** 51317

**UniProt ID:** [Q96BD5](#)

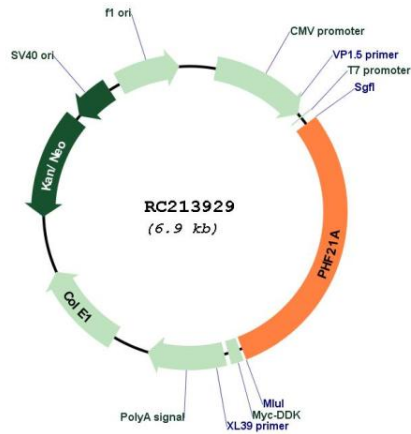
**Cytogenetics:** 11p11.2

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

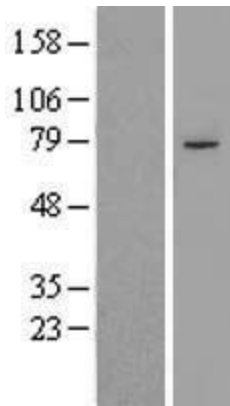
**MW:** 74.7 kDa

**Gene Summary:** The PHF21A gene encodes BHC80, a component of a BRAF35 (MIM 605535)/histone deacetylase (HDAC; see MIM 601241) complex (BHC) that mediates repression of neuron-specific genes through the cis-regulatory element known as repressor element-1 (RE1) or neural restrictive silencer (NRS) (Hakimi et al., 2002 [PubMed 12032298]).[supplied by OMIM, Nov 2010]

Product images:



Circular map for RC213929



Western blot validation of overexpression lysate (Cat# [LY420331]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213929 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).