

## Product datasheet for **MR206445**

### Phf10 (NM\_024250) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phf10 (NM_024250) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Phf10
Synonyms:	1810055P05Rik; AV024533
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206445 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTTCAGGAGCAAGTCAGTGAATATCTGGGTGTGACCTCCTTCAAGCGGAAATATCCAGAGCGACGAG  
ATTTATCTCACAAGGAGAACTATACCTGAGAGAATTAACGTCATCACGGAAACACAGTGCACACTGGG  
TTTAACAGCATTGCGCAGTGATGAAGTATTGACTTAATGATAAAAAGAATATCCAGCTAAACACGCTGAA  
TATTCGGTTATCCTACAAGAAAAGGAACGTCAGAGAATTACAGATCATTATAAAGAGTATTCTCAAATGC  
AACACAGAGTACTCAGAAAGTCGAAGCCAGCAAAGTACCTGAGTACATTAAGAAAGCAGCCAAGAAGGC  
AGCTGAGTTCAACAGCAACTTAAACCGGAGCGCATGGAAGAAAGAAGAGCCTATTTTGACTTACAGACA  
CATGTTATCCAAGTGCCTCAAGGAAAGTACAAAGTGTGCGGACAGACCGAACGAAGGTCAGTTCCTACC  
CAGTGGCTCTCATCCCGGACAGTTCAGGAGTATTATAAGAGGTAATCACCAGATGAGCTTCGGTACTT  
GCCATTAACACAGCCCTGTATGAGCCGCCCTGGACCCAGAGCTCCCGGCACTAGATAGTGATGGAGAC  
TCAGATGATGGCGAAGATGGCGGAGGGGATGAGAAGCGGAAGAATAAAGGCACTTCGGACAGCTCCTCAG  
GCAATGTGTCTGAAGGAGACAGCCCCCTGACAGCCAGGAGGACACCTTCCACGGAAGACAGAAATCAA  
AGACAAAATGGCCACTCCAAGAAAAGACGGCTCCAACGTTCTGTACTGTCCAAATCAGCTCCTGGGTAC  
AAGCCAAAGGTCATTCCAATGCTCTATGTGGAATTTGTCTGAAGGTAAGGAGTCCAACAAGAAAGGAA  
AGGCTGAATCACTTATACACTGCTCCAGTGTGATAACAGTGGCCACCTTCTTGCTTGGATATGACCAT  
GGAGCTTGTCTATGATTAAGACCTACCCATGGCAGTGTATGGAATGTAAGACATGCATTATATGTGGA  
CAGCCCCACCATGAAGAAGAAATGATGTTCTGTGATGTGTGACAGAGGTTATCATACTTTTTGTGTGG  
GCCTTGGTGCTATTCTTCAGGTCGCTGGATTTGTGACTGTTGTGACGAGCTCCCCAACACCCAGGAA  
AGTGGGCAGAAGGGGGAAAAACAGCAAAGAGGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR206445 protein sequence  
 Red=Cloning site Green=Tags(s)

MLQEQVSEYLVGTSFKRKYPERDL SHKEKLYLRELNVI TETQCTLGLTALRSDEVIDLMIKEYPAKHAE  
 YSVILQEKERQRITDHYKEYSQMQQSTQKVEASKVPEYIKKAAKAAEFNSNLNRERMEERRAYFDLQT  
 HVIQVPQKGYKVLPTDRTKVSSYPVALIPGQFQEYKRYSPDELRYLPLNTALYEPPLDPELPALDSDGD  
 SDDGEDGGGDEKRKNKGTSDSSSGNVSEGDSPDSEDTFHGRQKSKDKMATPRKDGSKRSVLSKSAPGY  
 KPKVIPNALCGICLKGKESNKKGAESLIHCSQCDNSGHPSCLDMTMELVSMIKTYPWQCMCKTCIICG  
 QPHHEEMMFCDVCDRGYHTFCVGLGAIPSGRWICDCCQRAPPTPRKVGRRGKNSKEG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_024250

**ORF Size:** 1227 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\\_024250.1](#)

**RefSeq Size:** 1665 bp

**RefSeq ORF:** 1494 bp

**Locus ID:** 72057

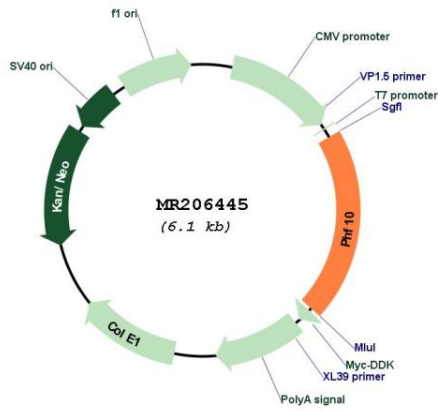
**UniProt ID:** [Q9D8M7](#)

**Cytogenetics:** 17 A2

**MW:** 46.3 kDa

**Gene Summary:** Involved in transcription activity regulation by chromatin remodeling. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and is required for the proliferation of neural progenitors. 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. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206445