

## Product datasheet for **RG239045**

### PHF19 (NM\_001286840) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHF19 (NM_001286840) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PHF19
Synonyms:	MTF2L1; PCL3; TDRD19B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG239045 representing NM\_001286840.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGCTGGTCTTGGTAATCCGTGGTCCCTATCCCAGCGCCCACTGTGTCAGGGGAAGCTGATGGAGAATCGA
GCTCTGGATCCAGGGACTCGGGACTCTATGGTGCCACCAGCCACCTCCCAACAAGGGGGCCCTGGCG
AAGGTCAAGAACAACCTTCAAAGACTTGATGTCCAAACTGACGGAGGGCCAGTATGTGCTGTGCCGTGG
ACAGATGGCCTGTACTACCTCGGGAAGATCAAGAGGGTCAGCAGCTCTAAGCAAAGCTGCCTCGTACT
TTCGAAGATAATTCAAAATACTGGGTCCTATGGAAGGACATACAGCATGCCGGTGTTCAGGAGAGGAG
CCCAAGTGCAACATCTGCCTAGGGAAGACATCAGGGCCGCTGAATGAGATCCTCATCTGCCGGAAGTGT
GGCCTGGGTTACCACCAGCAGTGCCACATCCCCATAGCGGGCAGTGTGACCAGCCCTGCTCACACCT
TGGTTCGCCGACGCTGCATCTTCGCACTGGCTGTGCGGAAAGGGCGCGCTGAAGAAGGGCGCCATC
GCCAGGACGCTGCAGGCCGTGAAGATGGTGTCTCTACCAGCCCGAGGAGCTCGAGTGGGACTCGCCC
CATCGCACCAACCAGCAGCAATGCTACTGCTACTGCGGGCGGCCGGAGAATGGTACCTGCGGATGCTG
CAATGTTACCGGTGCAGGCAAGTGTCCACGAGGCCTGCACCCAGTGCCTCAATGAGCCCATGATGTTT
GGAGACCGGTTTTACCTGTTCTTCTGCTCCGTGTGAACCAGGGCCAGAGTACATCGAGAGGCTGCC
CTGCGATGGGTGGATGTGGTTCACCTGGCCCTCTATAATCTGGGGTACAGAGCAAGAAGAAGTACTTT
GACTTTGAGGAGATTCTGGCCTTGTCAACCACCCTGGGAGCTCCTGCAGCTTGGAAGCTCACCAGC
ACCCAGTGACAGATCGAGGACCACATCTCTCAACGCTCTGAACAGTTATAAAAGCCGGTTCCTCTGC
GGCAAGGAGATCAAGAAGAAGAAGTGCATCTCCGCTGCGCATCCGCTCCCACCAACCCGCCAGGG
AAGCTGCTGCCTGACAAAGGACTGCTGCCAAATGAGAACAGCGCCTCCTGAGCTGCCTAAGAGAGGA
AAGAGCAAGCCTGGTTTTGCTGCTCACGAATCCAGCAGCAGAAAAGGGAGTTTATAGAAGAAAAGA
TCAAAGTTTTTGGTGGAAAGATGCTATCCAGTGTGACTTACCTCAGCCTGGAGCACCAACCACAC
CTGGCTAGCATATTTGACTTACGCTGGATGAAATTCAAAGTTTAAAAAGTGCCAGCTCAGGCCAGACC
TTCTTCTCAGATGTGACTCCACCGACGCTGCCAGCACCTCTGGCTCTGCCTCCACCAGCCTCTCTAT
GACTCCAGATGGACAGTGGGAGCCGAAAGAGGAAGCTGGCAGCCAAGGCATACATGCCCTGCGGGCA
AAGCGGTGGCAGCTGAGCTGGATGGACGCTGCCCTCGGACAGCAGTGCAGAGGGGGCTTCAGTCCCC
GAGCGGCCAGACGAAGGCATTGACAGCCACACATTTGAGAGCATCAGTGAAGATGACTCATCCCTGTCC
CACCTCAAGTATCTATACCAACTACTTTGGTGCAGCTGGGCGGTTGGCTGTGGGAGAAAGTACCAG
GTGTTGGCTCGGAGGGTCACACCTGAGGGCAAGGTTACGTACCTGGTGGAGTGGGAAGGGACCACCCCT
TAC
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
  
```

**Protein Sequence:**

>Peptide sequence encoded by RG239045  
 Blue=ORF Red=Cloning site Green=Tag(s)

```

MLVLVIRGPYPSAQCGKLMENRALDPGTRDSYGATSHLPNKGALAKVKNFKDLMSKLTGQYVLCRW
TDGLYYLGKIKRVSSSKQSLVTFEDNSKYWVWLWKDIQHAGVPGEPEKCNICLGKTSGLNEILICGKC
GLGYHQQCHIPIAGSADQPLLTPWFCRRCIFALAVRKGKALKKGAIAARTLQAVKMLVSYQPEELEDWSP
HRTNQQQCYCYCGGPGEWYLRMLQCYRCRQWFHEACTQCLNEPMMFGDRFYLFCSVCNQGPEYIERLP
LRWVDVHLALYNLGVQSKKDYDFEELAFVNHHWELLQLGKLTSTPVTDRGPHLLNALNSYKSRFLC
GKEIKKKKCFRLRIRVPPNPPGKLLPDKLLPNENSASSELRKRKSKPGLLPHEFQQKRRVYRRKR
SKFLLEDAIPSSDFTSAWSTNHHLASIFDFTLDEIQSLKSASSGQTFSDVDSTDAASTSGSASTLSY
DSRWTVGSRRKRLAAKAYMPLRAKRWAELDGRCPDSSAEGASVPERPDEGIDSHTFESISDSSLS
HLKSSITNYFGAAGRLACGEKYQVLARRVTPEGKVQYLVEWEGTTPY
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLSRDGGYSSVVDSHMFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
  
```

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



**ACCN:** NM\_001286840

**ORF Size:** 1797 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).

**RefSeq:** [NM\\_001286840.1](#), [NP\\_001273769.1](#)

**RefSeq Size:** 4181 bp

**RefSeq ORF:** 1800 bp

**Locus ID:** 26147

**UniProt ID:** [Q5T6S3](#)

**Cytogenetics:** 9q33.2

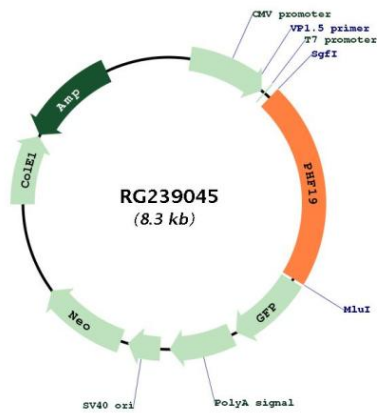
**Protein Families:** Druggable Genome

**MW:** 68.1 kDa

**Gene Summary:**

Polycomb group (PcG) that specifically binds histone H3 trimethylated at 'Lys-36' (H3K36me3) and recruits the PRC2 complex. Probably involved in the transition from an active state to a repressed state in embryonic stem cells: acts by binding to H3K36me3, a mark for transcriptional activation, and recruiting H3K36me3 histone demethylases RIOX1 or KDM2B, leading to demethylation of H3K36 and recruitment of the PRC2 complex that mediates H3K27me3 methylation, followed by de novo silencing. Recruits the PRC2 complex to CpG islands and contributes to embryonic stem cell self-renewal. Also binds dimethylated at 'Lys-36' (H3K36me2). Isoform 1 and isoform 2 inhibit transcription from an HSV-tk promoter. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RG239045