

## Product datasheet for MR200425

### Phf5a (NM\_026737) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Phf5a (NM\_026737) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Phf5a  
**Synonyms:** 1110007B08Rik  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR200425 representing NM\_026737  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTAAACATCATCCAGATTTGATTTCTGCCGAAGCAGGCTGGTGGCTATCGGAAGACTGTGTG  
 AAAAATGTGACGGCAAGTGTGTGATCTGTGATTCTACGTGCGTCCCTGCACCCTGGTCCGCATATGTGA  
 TGAGTGAACATGATCTTACCAGGGCCGGTGTGTAATCTGTGGCGGCCCGGAGTCTCCGATGCCTAC  
 TACTGTAAGAGTGCACCATTACAGGAGAAGGATAGAGATGGTTGTCCAAAGATTGCAATTTGGGGAGCT  
 CTAAGACAGACCTGTTCTATGAACGCAAAAAATACGGCTTCAAGAAGAGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR200425 representing NM\_026737  
 Red=Cloning site Green=Tags(s)

MAKHHPDLIFCRKQAGVAIGRLCEKCDGKCVICDSYVRPCTLVRICDECNYGSYQGRVCICGGPGVSDAY  
 YCKECTIQEKDRDGC PKIYNLGSSTDLFYERKKYGFKKR

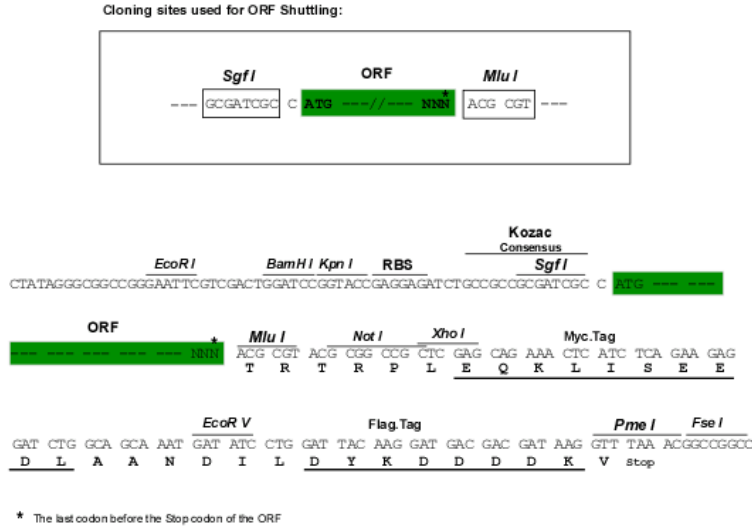
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1738\\_e04.zip](https://cdn.origene.com/chromatograms/ja1738_e04.zip)

**Restriction Sites:** SgfI-MluI



[View online »](#)

**Cloning Scheme:**


**ACCN:** NM\_026737

**ORF Size:** 330 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\\_026737.3](#), [NP\\_081013.1](#)

**RefSeq Size:** 1648 bp

**RefSeq ORF:** 333 bp

**Locus ID:** 68479

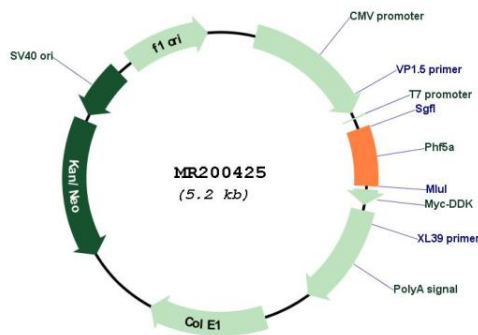
UniProt ID: [P83870](#)

Cytogenetics: 15 E1

MW: 12.9 kDa

**Gene Summary:** Involved with the PAF1 complex (PAF1C) in transcriptional elongation by RNA polymerase II, and in regulation of development and maintenance of embryonic stem cell (ESC) pluripotency. Required for maintenance of ESCs self-renewal and cellular reprogramming of stem cells. Maintains pluripotency by recruiting and stabilizing PAF1C on pluripotency genes loci, and by regulating the expression of the pluripotency genes. Regulates the deposition of elongation-associated histone modifications, including dimethylated histone H3 'Lys-79' (H3K79me2) and trimethylated histone H3 'Lys-36' (H3K36me3), on PAF1C targets, self-renewal and pluripotency genes. Regulates RNA polymerase II promoter-proximal pause release of the PAF1C targets and self-renewal genes, and the levels of elongating ('Ser-2' phosphorylated) RNA polymerase II in their gene bodies. Regulates muscle specification in adult stem cells by stabilizing PAF1C in chromatin to promote myogenic differentiation (PubMed:27749823). Involved in pre-mRNA splicing as a component of the splicing factor SF3B complex. SF3B complex is required for 'A' complex assembly formed by the stable binding of U2 snRNP to the branchpoint sequence (BPS) in pre-mRNA. Sequence independent binding of SF3A/SF3B complex upstream of the branch site is essential, it may anchor U2 snRNP to the pre-mRNA (By similarity). Acts as a transcriptional regulator by binding to the GJA1/Cx43 promoter and enhancing its up-regulation by ESR1/ER-alpha (By similarity). [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR200425