

## Product datasheet for **MC202248**

### Phf5a (NM\_026737) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phf5a (NM_026737) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Phf5a
Synonyms:	1110007B08Rik
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >BC025161 sequence for NM\_026737  
GTTCCCTAAGCTTCCGGCCCGCGCTTGGAAAAAGAGTTATGGCTAAACATCATCCAGATTTGATTTTCT  
GCCGCAAGCAGGCTGGTGTGGCTATCGGAAGACTGTGTGAAAAATGTGACGGCAAGTGTGTGATCTGTGA  
TTCCCTACGTGCGTCCCTGCACCCTGGTCCGCATATGTGATGAGTGTAACTATGGATCTTACCAGGGCCGG  
TGTGTAATCTGTGGCGGCCCGGAGTCTCCGATGCCTACTACTGTAAAGAGTGCACCATTAGGAGAAGG  
ATAGAGATGGTTGTCCAAAGATTGTCAATTTGGGGAGCTCTAAGACAGACCTGTTCTATGAACGCAAAAA  
ATACGGCTTCAAGAAGAGGTGATGGGTGGTGGCTCCTTCCCTCCCCATCAAAGTCTGCAGCTGCCAGA  
ATAGACGCCTACTACCACCGCTAAAGGGAACGGAGCTGAGTGTACCAGAGCAGCCTGCTAGTGTAGT  
GTCCTGGCCCCTGCCACTAGCAAGTGCCCATGGAGCATCTGCCAGACTGGAGGAGACGTTGCTCGTTAG  
TCCCTAGTCCCTTTTTGTTTTGAGTTGAAAAAGCAAGGCTCTGTTCTCCACATTGATCCTTTCAACTCA  
AAAGCCTCAAAACAAGTTGGTGTGTGCTTGGTGTGAAACTGTCCCGCAGAAGTGTGGTCTTGCAGC  
AGCTATGATGGGGTTGCTGTGACCCTCAGTGTGGCCAGGTGTGACCTGAACAGTAATGTGACCTGACA  
ATTTGCAGGTGGTGTGGCTCGTGTATTTTCTTGTAAAGTTGGAAGTTTCAATTACGCTAATAAAGTT  
GGCTACCTTCCCGTTAAAAA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_026737

**Insert Size:** 333 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).



[View online »](#)

**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:** [BC025161](#), [AAH25161](#)

**RefSeq Size:** 872 bp

**RefSeq ORF:** 333 bp

**Locus ID:** 68479

**UniProt ID:** [P83870](#)

**Cytogenetics:** 15 E1

**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]