

Product datasheet for MC223534

Phf2 (NM_011078) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phf2 (NM_011078) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Phf2
Synonyms:	GRC5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC223534 representing NM_011078 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGACGGTGCCCGTGTACTGCGTCTGCCGGCTGCCCTACGACGTTACCCGCTTTATGATCGAGTGCG
ATGCTGCAAGGACTGGTTCACGGCAGCTGTGTTGGGGTGAAGAGGAAGAGGCCACCAGACATCGACAT
TTACCACTGCCCCAACTGCGAGAAAACCCATGGCAAGTCCACACTCAAGAAAAAGCGGACTTGGCACAAA
CACGGCCCTGGGCAACACCGGACGTGAAACCAGTGCAGAATGGCAGTCAGCTGTTTCATCAAGGAGCTGC
GGAGCCGAACCTTCCCCAGTGTGAAGAGCTGGTGTCCCGTGTGCCAGGTAGCCAGCTCACCGTGGGCTA
CATGGAGGAGCATGGCTTCACTGAGCCATCCTTGTCCCAAGAAAGATGGCCTGGGCTTAGCTGTCCCT
GCCCAACATTCTACGTGAGTGTGTGGAGAATATGTGGGGCCGGAGAGGAGTGTGGATGTGACAGACG
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GGAGAAGGAACCGCCATCTCTGTTGAGACTACCCACCTCGATCCCTCCTGGAGAAAGTGTCCAAA



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AAAAAGACTTCCAAGACTGTGAAGATGCCAAGCCATCCAAAATTCCTCAAGCCCCCAAATCCCCAAGC
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TCCACCACCCCGGCTCCACCACCCAGCATCCACCACCCCGGCTCCACCAGCACAGCCAGCAGCCAGG
CCTCACAGGAGGGCAGCTCACCTGAGCCCCACCTGAATCACACAGCAGTAGCCTGGTGACCACGAATA
TACAGCAGCCGGCACATTCTCGGGTCCCAGGCTGGCCGTGCTCCAGCCCATGGCCCTGGAGTCTTT
CTCACACAGAGGGCGCTTCTGCATCATCCCCAACAACTGCTGCCAAGGAAAACGTACAAAAAAGG
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A

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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_011078
- Insert Size:** 3291 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).
- 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_011078.3](#), [NP_035208.2](#)

RefSeq Size: 5260 bp

RefSeq ORF: 3291 bp

Locus ID: 18676

UniProt ID: [Q9WTU0](#)

Cytogenetics: 13 24.96 cM

Gene Summary: Lysine demethylase that demethylates both histones and non-histone proteins. Enzymatically inactive by itself, and becomes active following phosphorylation by PKA: forms a complex with ARID5B and mediates demethylation of methylated ARID5B. Demethylation of ARID5B leads to target the PHF2-ARID5B complex to target promoters, where PHF2 mediates demethylation of dimethylated 'Lys-9' of histone H3 (H3K9me2), followed by transcription activation of target genes. The PHF2-ARID5B complex acts as a coactivator of HNF4A in liver. PHF2 is recruited to trimethylated 'Lys-4' of histone H3 (H3K4me3) at rDNA promoters and promotes expression of rDNA (By similarity).[UniProtKB/Swiss-Prot Function]