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Product datasheet for MC223259

Phf8 (NM_001113354) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phf8 (NM_001113354) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Phf8
Synonyms:	9830141C09Rik; mKIAA1111
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC223259 representing NM_001113354
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTCGGTGCCTGTGTATTGCCTCTGTCGACTGCCTTATGATGTGACCCGCTTCATGATCGAGTGTG
ACATGTGCCAGGACTGGTTTCACGGCAGTTGTGTTGGTGTTGAGGAGGAGAAGGCTGCTGATATTGATCT
TTACCACTGCCCTAACTGTGAGGTCTTACATGGACCTTCCATTATGAAAAAACGTCGTGGATCTTCCAAA
GGACATGATAATCACAAGGGGAAGCCACTGAAGACTGGAAGCTCTATGTTTATCCGAGAACTTCGGGGCA
GAACTTTTGACAGCTCAGATGAAGTGATTCTGAAGCCCACTGGAAGTCAGCTGACTGTGGAATTCTTGGA
AGAGAATAGCTTCAGCGTGCCTATCCTTGTCTTGAAGAAGGATGGGTTGGGGATGACATTACCCTCTCCA
TCATTCACTGTGAGGGATGTGGAACACTATGTTGGTTCTGACAAAGAGATTGATGTGATTGATGTGGCCC
GCCAGGCTGACTGCAAGATGAAACTCGGTGATTTTGTCAAATACTATTACAGTGGGAAGAGGGAAAAAGT
CCTCAATGTCATTAGTTTGGAATTCTCCGATACCAGGCTTTCAAACCTCGTGGAAACACCCAGGATTGTT
CGCAAGCTGTCATGGGTGGAGAACTTGTGGCCAGAGGAATGTGTCTTTGAGAGACCCAATGTGCAGAAGT
ACTGCCTCATGAGTGTGCGGGATAGCTATACAGATTTTCACATTGACTTTGGTGGGACCTCAGTTTGGTA
CCATGTGCTTAAGGGTGAGAAGATCTTCTACCTGATCCGCCCAACAAATGCTAATCTGACTCTCTTTGAG
TGCTGGAGTAGCTCCTCCAATCAGAACGAGATGTTCTTTGGTGACCAAGTGGAAAAGTGCTACAAGTGTT
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AAGAGGCTGAGCACAGCAGACCTTTTCAAGTTTCCCAACTTCGAGACCATCTGTTGGTATGTGGGAAAAC
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TAAAGCTCTGAACTTGGCATTTAGAGCTTGGACAAAGAAAGAAGCTTTGCCAGACCACGAGGATGAGATC
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TCCAACAGAACGTTGGGAAGACGAGCAATATCTTTGGGCTGCAGAGGATCTTCCCAGCTGGCTCCATCCC
CTTAACCAAGCCAGCCCATTCCACTTCAGTATCCATGTCCAAGCTGTCACTGCCCTCCAAAAATGGTTCA
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AAGAAGAAAGGCCTGAAGCCCAAGGATATCTTCAAGAAGGCAGAGCGAAAGGGCAAGCAGAGTTCAGCCT
TGGGGCCTGCTGGCCAGTTGAGCTATAATCTCATGGACCCATACAGTCATCAGGCACTGAAGACAGGCCC
TTCCCAGAAAGCAAAGTTCAACATGAGTGGTACCAGCTTGAATGATTCAGATGATGACTCAGCAGACATG
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TATCCAAATCTCGGAGAGCCAAAATTGCAAAGAAGGTAGACAGTGCAAGACTGGTAGCAGAACAGGTCAT
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TTCGTGAACCTGGAGAAGTTGAGTTTGACATTGAGGAGGACTATACCACAGATGAGGACATGGTGGAAGG
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GCATGTTGTGTATGGCCAACCTGCAGTCCTCATCATCCTCACCAGCTACCTCCAGTCTGCAGGCTTGGTG
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TCCCAGCGCACCCCAGGGAAGCGGCCCATCAAGAGGCCAGCATACTGGAAAAACGAGAGTGAAGAGGAGG
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TCTGGAGTCTGATGATGATGACCCTGCTTTGAAATCTCGACCCAAGAAAAAGAAGAATTCAGATGATGCT
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GAGTTGCCTCCATTGAGACAGGCTTGGCTGCAGCAGCTGCAAAGCTTGCCCAGCAGGAGCTACAAAAGGC
CCAAAAGAAGAAATATATCAAGAAGAAGCCTTTGCTGAAGGAGGTAGAACAGCCGCGCCCTCAAGATTCC
AATCCCATCATGACAATGCCTGCACCAACTGTGGCTACAACACCCCAGCCTGACACCTCCTCCTCACCCC
AGCCACCTCCTGAGCCTAAACAAGAGGCTCTGTCAGGAAGTCTTGCTGACCATGAGTACACTGCTCGTCC
CAATGCCTTTGGCATGGCTCAGGCAAATCGCAGCACCACACCCATGGCCCCTGGAGTCTTCCTCACCCAG
CGGCGCCCTTCAGTTGGTTCCCAGAGCAGTCAGGCAGGACAAGGAAAGCGTCCTAAAAAGGGCCTGGCCA
CAGCAAAGCAGAGACTCGGCCGCATCCTGAAAATCCACAGAAATGGCAAGTTACTTCTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001113354
Insert Size:	3072 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_001113354.1, NP_001106825.1
RefSeq Size:	6359 bp
RefSeq ORF:	3072 bp

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Locus ID:	320595
UniProt ID:	Q80TJ7
Cytogenetics:	X F3
Gene Summary:	Histone lysine demethylase with selectivity for the di- and monomethyl states that plays a key role cell cycle progression, rDNA transcription and brain development. Demethylates mono- and dimethylated histone H3 'Lys-9' residue (H3K9Me1 and H3K9Me2), dimethylated H3 'Lys-27' (H3K27Me2) and monomethylated histone H4 'Lys-20' residue (H4K20Me1). Acts as a transcription activator as H3K9Me1, H3K9Me2, H3K27Me2 and H4K20Me1 are epigenetic repressive marks. Involved in cell cycle progression by being required to control G1-S transition. Acts as a coactivator of rDNA transcription, by activating polymerase I (pol I) mediated transcription of rRNA genes. Required for brain development, probably by regulating expression of neuron-specific genes. Has activity toward H4K20Me1 only when nucleosome is used as a substrate and when not histone octamer is used as substrate. May also have weak activity toward dimethylated H3 'Lys-36' (H3K36Me2), however, the relevance of this result remains unsure in vivo. Specifically binds trimethylated 'Lys-4' of histone H3 (H3K4me3), affecting histone demethylase specificity: has weak activity toward H3K9Me2 in absence of H3K4me3, while it has high activity toward H3K9me2 when binding H3K4me3. [UniProtKB/Swiss-Prot Function]

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