

Product datasheet for **RN203996**

Mphosph8 (NM_001017375) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mphosph8 (NM_001017375) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Mphosph8
Synonyms:	Ab2-008; RGD1305133
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN203996 representing NM_001017375
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGGCGGCTACTGAGGAAAACATGAGTGTGGCCGCGCTAGTTATGTCAGTTCGGACAAACATTGGCC
 GATCTCCCGAGGTGGAAGGAGGTGGAGCAGCGGGCGAAGAGAAGGACGCAGCCACCAAGGGAACGGTGGC
 GGTTGGGACAGCGAGGAGGATGGGAGGACGTTTTGAGGTGGAGAGGATCCTGGACATGAAGTGCAG
 GGAGGTAAGAATCTTTATAAGGTTGATGGAAAGGATATACGTCGATGATGACACTTGGGAACCTGAGG
 TTCATCTGGAGGACTGTAAGAAGTTCTTCTGAATTTAGGAAGAAAGTTGCTGAGAACAAAGCTAAAGC
 AGTAAGGAAAGATATTCAGAACTATCTTTAAACAATGACATATTTGAGGCAGACAGTGATATCGACCAG
 CAAGGTGACACAAAAGAAGATACGTCACCAAGGAAGAAAAAGAAAAAATAAGTACAAAGAAGATAAAA
 GTCCAGATGATCTGAGGAAGAAAAGGGCAAGATGGGAAAACTAAAGATAAGTTCAAGACAGAGCTGGA
 GAGCACCTCTGAAATTTTAGGTTTTGATGTAAGACAAAGAAAAGAAATTTTGGAGTCAAAGAAGAAATTA
 AAGGACTCCAAAAACCCAAAAAGGATGAAATAAAGGAAACCAAGAAAACATAAAGGGCTGACATAAGAG
 ATTTAAAGATTAAAAAAGAGAAGATGTCAAAGACAACCGAAAAACAAAGAAAGAAAGATATATAGACTC
 TCCCTGGAGTCCGAGTCACCTAATGATTCCTTCACTCTAGAGGATGAGAGTGAAGACTTCTTTCCGAC
 AACAAAGAGAAACAAATGTAAGAACTGCAAGGATAAGACAGGACAGGATACAGTGCAAGAGAGCATTT
 TTGAGAAACATCTGGATGACCTTATAAGTATTGAAGAGGCTGGTACCCGAGTTAGAAGGAAGAAGAAACA
 GCCAAGGAAGTTTGGGAACCAAGAGATCAAGAAGCTTGAAACACAAATAACTTTTTAGAAAGAAAA
 ATGATACCCAAAAAGCAAAGAAATCAAGACAAAGGCAGAAGTAACCCAGAGTTAAGTAAGTTACCATCAC
 CTGTGTTTGCCCAACCATGAAAAGTTTGAGACTGAGTGGGAAGAGAAGGGCCTAAAGTCTCTGACTT
 GGCAGAAAGAGGAGAAAGAGAGAAAAAATGAACCCAAAGAAAAATACCAGAAAAGGTATGATTTTCGACAAA
 GAAGAAAAAGCCAGAAAAGAGCCAAAGGGATTAAAGTCATTTAAGGAAATCAGAAATGCATTTGATTAT
 TAAAAAAACAGCAGAAGAAAAAATGATCTTGAATAATTCAAAAAGAGAAGAAATCTCACTGGATTA
 TAAATTACACATGATAACAAACCAAGACAAGTGTTCACTTAGAGAAGAGAGAAACACTAGAGATGAG
 ACTGACACTTGGGCATACATTGCTGCAGAAGGGGATCAGGAAGTTTCAGACAGTGTATGCCAACAGATG
 AGAGTTCTGATGGCAAGCAACCAATTTTGAAGTTGGGTATGGACCTGCAGTTGGAGTGGATGAAATTAGA
 AGATTTTCAAAGCATCTTGATGGGAAGATGAGCCCTTTATCACAGCAAATAGGATTCCCAGCAATTTG
 TTGAGGGATGCTGTGAAAATGGAGATTATTTGCTGTGAAGGTTGCACTGAACTCAAATGAAGAATACA
 ACTTGATCAAGAGGATTCTACTGGGATGACACTGGTGATGTTGGCTGCAGCAGGGGGTCAGGATGACCT
 CCTCAGACTCCTTATCACCAAAGGAGCAAAAGTGAATGGGCGCCAGAAAAACGGGACTACAGCTCTCATT
 CATGCTGCTGAGAAGAACTTTCTAACGACGGTAGCTATTCTGTTGGAGGCTGGAGCTTTTGTCAATGTTT
 AGCAAAGCAACGGTGAGACTGCACTCATGAAGGCATGCAAAAGAGGGAATTCGGACATCGTCCGCTTTGT
 GATTGAGTGTGGAGCTGACTGCAACATCCTGTCAAAGCACCAGAAATAGCGCACTGTACTTTGCAAAGCAG
 TGAATAATGTGCTTGTATGAAGTGTGAAGAGCCACTTGAGACCCTTTCAAGAGTTGCAGAAGAAA
 CAATCAGGATTACTTTGAATCTCGCCTTGCTCTACTGGAACCTGTTTTCCCAATTGCATGTCATCGGCT
 CTGTGAGGGGCGCGATTTCTCAACAGATTTCAATTACATGCCCCCTCAGAACATGCCTGAAGGATCTGGT
 GTCCTCTCTTCAATTTTCCATGCAAACTTCTTGGGTAAGATGTCATTGCTCGGCTTTGTGGACCATGCA
 GTGTGCAAGCCGTGGTGCTAAATGATAAATCCAGCTACCTGTTTTCTGGACAGTCACTTTGTTTATTC
 ATTCAGCCCTGTTGCTGGCCCCAATAAGTTGTTTATAAGGTTGACGGAAGCACCTTTGCCAAGGTGAAG
 TTGCTAATAGGTGCTTACAGAGTACAGTGCAG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001017375
Insert Size: 2556 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:	<ol style="list-style-type: none"> 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:	<u>NM_001017375.2, NP_001017375.2</u>
RefSeq Size:	2877 bp
RefSeq ORF:	2556 bp
Locus ID:	290270
UniProt ID:	<u>G3V8T1</u>
Cytogenetics:	15p12
Gene Summary:	Heterochromatin component that specifically recognizes and binds methylated 'Lys-9' of histone H3 (H3K9me) and promotes recruitment of proteins that mediate epigenetic repression. Mediates recruitment of the HUSH complex to H3K9me3 sites: the HUSH complex is recruited to genomic loci rich in H3K9me3 and is required to maintain transcriptional silencing by promoting recruitment of SETDB1, a histone methyltransferase that mediates further deposition of H3K9me3, as well as MORC2. Binds H3K9me and promotes DNA methylation by recruiting DNMT3A to target CpG sites; these can be situated within the coding region of the gene. Mediates down-regulation of CDH1 expression. Also represses L1 retrotransposons in collaboration with MORC2 and, probably, SETDB1, the silencing is dependent of repressive epigenetic modifications, such as H3K9me3 mark. Silencing events often occur within introns of transcriptionally active genes, and lead to the down-regulation of host gene expression. The HUSH complex is also involved in the silencing of unintegrated retroviral DNA by being recruited by ZNF638: some part of the retroviral DNA formed immediately after infection remains unintegrated in the host genome and is transcriptionally repressed.[UniProtKB/Swiss-Prot Function]