

# **Product datasheet for RC202562L3**

#### OriGene Technologies, Inc.

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### MPP8 (MPHOSPH8) (NM\_017520) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: MPP8 (MPHOSPH8) (NM\_017520) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: MPP8

Synonyms: HSMPP8; mpp8; TWA3

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clo

Sequence:

The ORF insert of this clone is exactly the same as(RC202562).

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**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_017520

ORF Size: 2580 bp





### MPP8 (MPHOSPH8) (NM\_017520) Human Tagged Lenti ORF Clone - RC202562L3

**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:** <u>NM 017520.2</u>

RefSeq Size: 4281 bp RefSeq ORF: 2583 bp

**Locus ID:** 54737

UniProt ID: Q99549

Cytogenetics: 13q12.11

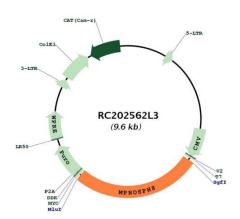
**MW:** 97.2 kDa



#### **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 (PubMed:20871592, PubMed:26022416). 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 (PubMed:26022416, PubMed:28581500). Binds H3K9me and promotes DNA methylation by recruiting DNMT3A to target CpG sites; these can be situated within the coding region of the gene (PubMed:20871592). Mediates down-regulation of CDH1 expression (PubMed:20871592). 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 (PubMed:29211708). 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 (PubMed:30487602). [UniProtKB/Swiss-Prot Function]

## **Product images:**



Circular map for RC202562L3