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# Product datasheet for RC202562L3V

## MPP8 (MPHOSPH8) (NM_017520) Human Tagged ORF Clone Lentiviral Particle

### Product data:

| | |
|---|---|
| **Product Type:** | Lentiviral Particles |
| **Product Name:** | MPP8 (MPHOSPH8) (NM_017520) Human Tagged ORF Clone Lentiviral Particle |
| **Symbol:** | MPP8 |
| **Synonyms:** | HSMPP8; mpp8; TWA3 |
| **Mammalian Cell Selection:** | Puromycin |
| **Vector:** | pLenti-C-Myc-DDK-P2A-Puro (PS100092) |
| **Tag:** | Myc-DDK |
| **ACCN:** | NM_017520 |
| **ORF Size:** | 2580 bp |
| **ORF Nucleotide Sequence:** | `The ORF insert of this clone is exactly the same as(RC202562).` |
| **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. |
| **RefSeq:** | NM_017520.2 |
| **RefSeq Size:** | 4281 bp |
| **RefSeq ORF:** | 2583 bp |
| **Locus ID:** | 54737 |
| **UniProt ID:** | Q99549 |
| **Cytogenetics:** | 13q12.11 |
| **MW:** | 97.2 kDa |

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**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]