

## Product datasheet for **RC200925L3V**

### **METTL14 (NM\_020961) Human Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type:             | Lentiviral Particles                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Product Name:             | METTL14 (NM_020961) Human Tagged ORF Clone Lentiviral Particle                                                                                                                                                                                                                                                                                                                                                                                     |
| Symbol:                   | METTL14                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Synonyms:                 | hMETTL14                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Mammalian Cell Selection: | Puromycin                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Vector:                   | pLenti-C-Myc-DDK-P2A-Puro (PS100092)                                                                                                                                                                                                                                                                                                                                                                                                               |
| Tag:                      | Myc-DDK                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ACCN:                     | NM_020961                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ORF Size:                 | 1368 bp                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(RC200925).                                                                                                                                                                                                                                                                                                                                                                                     |
| 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. <a href="#">More info</a> |
| 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:                   | <a href="#">NM_020961.2</a>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| RefSeq Size:              | 2138 bp                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| RefSeq ORF:               | 1371 bp                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Locus ID:                 | 57721                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| UniProt ID:               | <a href="#">Q9HCE5</a>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Cytogenetics:             | 4q26                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Domains:                  | MT-A70                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MW:                       | 52.2 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                           |



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**Gene Summary:**

The METTL3-METTL14 heterodimer forms a N6-methyltransferase complex that methylates adenosine residues at the N(6) position of some mRNAs and regulates the circadian clock, differentiation of embryonic stem cells and cortical neurogenesis (PubMed:24316715, PubMed:24407421, PubMed:25719671, PubMed:29348140, PubMed:27373337, PubMed:27281194). In the heterodimer formed with METTL3, METTL14 constitutes the RNA-binding scaffold that recognizes the substrate rather than the catalytic core (PubMed:27627798, PubMed:27373337, PubMed:27281194, PubMed:29348140). N6-methyladenosine (m6A), which takes place at the 5'-[AG]GAC-3' consensus sites of some mRNAs, plays a role in mRNA stability and processing (PubMed:24316715, PubMed:24407421, PubMed:25719671). M6A acts as a key regulator of mRNA stability by promoting mRNA destabilization and degradation (By similarity). In embryonic stem cells (ESCs), m6A methylation of mRNAs encoding key naive pluripotency-promoting transcripts results in transcript destabilization (By similarity). M6A regulates spermatogonial differentiation and meiosis and is essential for male fertility and spermatogenesis (By similarity). M6A also regulates cortical neurogenesis: m6A methylation of transcripts related to transcription factors, neural stem cells, the cell cycle and neuronal differentiation during brain development promotes their destabilization and decay, promoting differentiation of radial glial cells (By similarity).[UniProtKB/Swiss-Prot Function]