

Product datasheet for **MR206460L4V**

Eif4a3 (NM_138669) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

| | |
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| Product Type: | Lentiviral Particles |
| Product Name: | Eif4a3 (NM_138669) Mouse Tagged ORF Clone Lentiviral Particle |
| Symbol: | Eif4a3 |
| Synonyms: | 2400003O03Rik; Ddx48; eIF4A-III; mKIAA0111 |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-mGFP-P2A-Puro (PS100093) |
| Tag: | mGFP |
| ACCN: | NM_138669 |
| ORF Size: | 1236 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(MR206460). |
| 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_138669.1 , NP_619610.1 |
| RefSeq Size: | 1489 bp |
| RefSeq ORF: | 1236 bp |
| Locus ID: | 192170 |
| UniProt ID: | Q91VC3 |
| Cytogenetics: | 11 E2 |



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Gene Summary:

ATP-dependent RNA helicase. Involved in pre-mRNA splicing as component of the spliceosome. Core component of the splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junctions on mRNAs. The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). Its RNA-dependent ATPase and RNA-helicase activities are induced by CASC3, but abolished in presence of the MAGOH-RBM8A heterodimer, thereby trapping the ATP-bound EJC core onto spliced mRNA in a stable conformation. The inhibition of ATPase activity by the MAGOH-RBM8A heterodimer increases the RNA-binding affinity of the EJC. Involved in translational enhancement of spliced mRNAs after formation of the 80S ribosome complex. Binds spliced mRNA in sequence-independent manner, 20-24 nucleotides upstream of mRNA exon-exon junctions. Shows higher affinity for single-stranded RNA in an ATP-bound core EJC complex than after the ATP is hydrolyzed. Involved in the splicing modulation of BCL2L1/Bcl-X (and probably other apoptotic genes); specifically inhibits formation of proapoptotic isoforms; the function is different from the established EJC assembly. Involved in craniofacial development.[UniProtKB/Swiss-Prot Function]