

Product datasheet for **RR210891L3V**

Nudt21 (NM_001039004) Rat Tagged ORF Clone Lentiviral Particle

Product data:

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|---------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | Nudt21 (NM_001039004) Rat Tagged ORF Clone Lentiviral Particle |
| Symbol: | Nudt21 |
| Synonyms: | Cpsf5 |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-Myc-DDK-P2A-Puro (PS100092) |
| Tag: | Myc-DDK |
| ACCN: | NM_001039004 |
| ORF Size: | 681 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RR210891). |
| 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_001039004.1 , NP_001034093.1 |
| RefSeq Size: | 1074 bp |
| RefSeq ORF: | 684 bp |
| Locus ID: | 291877 |
| UniProt ID: | Q4KM65 |
| Cytogenetics: | 19p12 |



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Gene Summary:

Component of the cleavage factor Im (CFIm) complex that functions as an activator of the pre-mRNA 3'-end cleavage and polyadenylation processing required for the maturation of pre-mRNA into functional mRNAs. CFIm contributes to the recruitment of multiprotein complexes on specific sequences on the pre-mRNA 3'-end, so called cleavage and polyadenylation signals (pA signals). Most pre-mRNAs contain multiple pA signals, resulting in alternative cleavage and polyadenylation (APA) producing mRNAs with variable 3'-end formation. The CFIm complex acts as a key regulator of cleavage and polyadenylation site choice during APA through its binding to 5'-UGUA-3' elements localized in the 3'-untranslated region (UTR) for a huge number of pre-mRNAs. NUDT21/CPSF5 activates indirectly the mRNA 3'-processing machinery by recruiting CPSF6 and/or CPSF7. Binds to 5'-UGUA-3' elements localized upstream of pA signals that act as enhancers of pre-mRNA 3'-end processing. The homodimer mediates simultaneous sequence-specific recognition of two 5'-UGUA-3' elements within the pre-mRNA. Plays a role in somatic cell fate transitions and pluripotency by regulating widespread changes in gene expression through an APA-dependent function. Binds to chromatin. Binds to, but does not hydrolyze mono- and di-adenosine nucleotides. [UniProtKB/Swiss-Prot Function]