

Product datasheet for **RN204500**

Ddx21 (NM_001037201) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ddx21 (NM_001037201) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Ddx21
Synonyms:	Ddx21a; Ddx21b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF:

>RN204500 representing NM_001037201

Red=Cloning site Blue=ORF Orange=Stop codon

 TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

 ATGCCGGGAAACTCCGCAGTGCCTCCAAGTCGGAGTCAGAAGGGACCGAGGAGAGTATGGAGACGCTGC
 AGAAGCCAAGCGAGAAGAACTAGAAAAGAGAAGCCAAATCTAAGACTGACGAGGCAACAGAAGGAGT
 GGAAGAGGCCGCTTCTCCAAGTGAAAGCAGTTAAAAAGAAAGGGCCTTCTGAGGATGATGTGGGTCCC
 CCTAAATCCAAGAAGGCCAAGAAGCAGGAGGAGGAGCCTCAAGATGACCTGCTTCTAAAAGCAAAACCT
 CCAAGAAGAAAAAGGAGCCCTAGAGAAGAAAGCACCTCTGCTAAAACCAAGAAATGAAAGCCGAGGA
 GCCTTCTGAGGAAGAGCAGACGCTCTAAGCCCAAAAAGACAAAGAAAGGAAGGAAGCAACGGAGAT
 GTGGGAGAGAAGAGCCCGGGCTGAAGAATGGGCTCTCCATCCCAAGCCAGACTCCAGCTCCACCCAAG
 CTCCCGGAGAGGAAAGCAGACAGAAAAGGAAATACCCGTGGAGCAGAAAGAAAGGAGCCTTCTTAATTT
 TCCCATATCAGAAGAGACTGTCAAATCTCAAAGCTCGTGGGGTGAATTCCTCTTCCCTATACAAGCC
 AAGACATTCCACCATGTGTACAGTGGGAAGGACTTAATCGCCACGGCACAGGAACCGGAAGACCT
 TCTCCTTTGCCATCCCTTTGATTGAGAACTTCAAGGTGGGCTGCAAGAGAGGAAGAGAGCCGAGCCCC
 TCAGGTGCTAGTCCTTGACCTACAAGAGAATTAGCAAATCAAGTGAGCAAGACTTCAGTGACATCACC
 AAAAGCTCTCAGTAGCCTGTTTTATGGTGGAATCCCTATGGTGGTCAATCGAACGAATGCGGAGTG
 GGATTGACATCCTGGTCGGGACCCAGGTGCTATTAAAGACCACTTGCAAGTGGCAAGCTAGACCTCAC
 CAACTTAAACATGTTGTCTGGATGAAGTTGATCAGATGTTGGATATGGGCTTTGCTGATCAAGTGAA
 GAAATTTATGTGTGGCATACAAGAAAGATTCTGAAGACAACCCCAACATTGCTTTTCTGCAACTT
 GCCCTCATTGGGTATTTAATGTTGCTAAGAAATACATGAAATCTACATACGAACAGGTGGACCTGATTGG
 TAAAAAGACTCAGAAAGCAGCCATAACTGTGGAGCACCTGGCGATTAAAGTGTCACTGGACAGAGAGGGCA
 GCGGTGATTGGGGATGTGATCCGAGTGTACAGTGGTCACCAAGGGCGTACAATCATCTTCTGCGAAACCA
 AGAAGGATGCACAGGAGCTGTCGAGAACACGTGCATAAAGCAGGATGCCAGTCCTTACATGGCGACAT
 TCCACAGAAGCAAAGGGAATCACCTGAAAGGTTTCCGAAATGGCAATTTTGAGTTTTGGTGGCAACC
 AATGTTGCTGCCGTGGTTAGACATCCCTGAGGTTGACCTGGTGTTCAGAGCTGTCCACCAAGGATG
 TGGAGTCTTACATTCATCGTTCGGGGCGGACAGGAGCTGGAAGAACAGGGGTTTGCATCTGCTTTTA
 TCAGCACAAAGAAGAGTACAGTTAGCACAAAGTGAACAGAAAGCGGAATTAATTTAAACGGATAGGT
 GTTCCTTCTGCAACAGAAATAATAAAGCCTCCAGCAAAGACGCAATCAGGCTCTTGGATTCTGTGCCTC
 CCACTGCTATTGGCCATTTCAAGCAGTCGGCTGAGAAGCTGATCGAGGAGAAGGGAGCTGTAGAGGCCCT
 GGCCGAGCTCTGGCCACATCTCGGGGCCACATCGGTGGACCAGCGCTCCCTAATCAACTCACAAAGCG
 GGCTTTGTGACCATGATCCTGCGGTGTTCTGTTGAGATGCCAACATTAGTTATGCCTGGAAAGAACTTA
 AGGAGCAGCTGGGTGAGAGCATCGATGCCAAAGTGAAGGGGATGGTCTTCTCAAAGGAAAACTGGGAGT
 TTGTTTTGATGTCCGCACTGAAGCAGTCACAGAAATAAAGGAGAAGTGACAGATTTCGAGACGCTGGCAG
 CTCAGTGTGGCCACCGAGCAGCCGAGCTGGAAGGACCCCAAGGATACCGAGGCGGCAGGGGCCAGC
 GGGATGGCAGCCGTGGCTCTTTCAGAGGACAGCGGGGTGGAAGCAGGAACCTCCGGGACAGGGACAGCG
 AGGAGGAAGTAGAACTTCAGAGGACAGCGACCGAGGTGGCAACAAAAGTAACAGGTCCCAACAA
 GGCCAGAAGCGGAGTTTTAGTAAAGCATTGGTCAG**TGA**
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_001037201

Insert Size:

2349 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_001037201.1</u> , <u>NP_001032278.1</u>
RefSeq Size:	4413 bp
RefSeq ORF:	2349 bp
Locus ID:	317399
UniProt ID:	<u>Q3B8Q1</u>
Cytogenetics:	20q11
Gene Summary:	<p>RNA helicase that acts as a sensor of the transcriptional status of both RNA polymerase (Pol) I and II: promotes ribosomal RNA (rRNA) processing and transcription from polymerase II (Pol II). Binds various RNAs, such as rRNAs, snoRNAs, 7SK and, at lower extent, mRNAs. In the nucleolus, localizes to rDNA locus, where it directly binds rRNAs and snoRNAs, and promotes rRNA transcription, processing and modification. Required for rRNA 2'-O-methylation, possibly by promoting the recruitment of late-acting snoRNAs SNORD56 and SNORD58 with pre-ribosomal complexes. In the nucleoplasm, binds 7SK RNA and is recruited to the promoters of Pol II-transcribed genes: acts by facilitating the release of P-TEFb from inhibitory 7SK snRNP in a manner that is dependent on its helicase activity, thereby promoting transcription of its target genes. Functions as cofactor for JUN-activated transcription: required for phosphorylation of JUN at 'Ser-77'. Can unwind double-stranded RNA (helicase) and can fold or introduce a secondary structure to a single-stranded RNA (foldase). Involved in rRNA processing. May bind to specific miRNA hairpins (By similarity). Component of a multi-helicase-TICAM1 complex that acts as a cytoplasmic sensor of viral double-stranded RNA (dsRNA) and plays a role in the activation of a cascade of antiviral responses including the induction of proinflammatory cytokines via the adapter molecule TICAM1 (By similarity). [UniProtKB/Swiss-Prot Function]</p>