

Product datasheet for **MR210392**

Ddx1 (NM_134040) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ddx1 (NM_134040) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ddx1
Synonyms:	AA409185; DBP-RB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR210392 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCCTTCTCCGAAATGGGTGTTATGCCGGAGATTGCACAAGCTGTGGAGGAGATGGATTGGCTTC
 TACCAACTGATATCCAGGCAGAATCTATCCATTGATCCTAGGAGGAGGGATGTAATCATGGCTGCAGA
 AACAGGAAGTGGAAAACTGGTGCATTTAGTATCCCGTTATCCAGATAGTGTATGAAACTCTGAAAGAC
 CAACAGGAAGGAAAGAAAGGAAAACTATTAATAAACTGGTGCCTCAGTGCTCAACAAGTGGCAGATGA
 ACCCATATGATAGAGGTCTGCTTTTGAATTGGATCAGATGGTCTGTGTGTCAGAGCAGAGAAGTGAA
 GGAGTGGCATGGATGCAGAGGAAGTACAGGACTGCTGAAAGGGAAGCACTACTATGAGGTGCTGTGCAT
 GACCAAGGGCTATGCAGAGTTGGTGGTCTACCATGCAGGCTCCTTAGACCTAGGTACTGACAAGTTG
 GATTTGGCTTCGGTGGACAGGAAAGAAATCTCATAATAAACAATTTGATAATTATGGAGAGGAATTCAC
 TATGCATGATACCATTGGATGTTACTTAGATATCGATAAAGGGCATGTGAAGTTCTTAAGAATGGAAAA
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 AGAATGCTGAATTTAACTTTGGTGAAGAAGAATTTAAGTTTCCACAAAAGATGGTTTTGTTGC
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 GAACTAAAATTGACTGTGATAAATTGGAGCAGTACTTTATGCAGCAAGGAGGAGGACCTGACAAAAAAGG
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 TACAAAGGCCATGTGGATGTCTGGCACCTACCGTTCAAGAGTTGGCTGCCCTTAAAAGGAAGCACAGA
 CCTCTTTCCTACACCTTGGCTACCTTCCAACAGCTGTTCCGAACCTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210392 protein sequence
 Red=Cloning site Green=Tags(s)

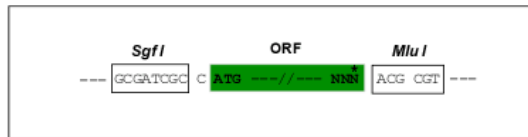
MAAFSEMGMPEIAQAVEEMDWLLPTDIAESIPLILGGGDVLMMAETGSGKTGAFSIPVIQIVYETLKD
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 DQGLCRVGWSTMQASLDLGTDFGFGGGTGKKSHNKQFDNYGEEFTMHDTIGCYLDIDKGHVKFSKNGK
 DLGLAFEIPAHIKNQALFPACVLKNAELKFNFGEEEFKFPKDGFFVALSKAPDNYIVKSQHTGNAQVSQT
 KFLPNAPKALIVEPSRELAEQTLNNVKQFKKYIDNPKLRELLIIGGVAARDQLSVLDNGVDIVVGTGRL
 DDLVSTGKLNLSQVRFLVLEADGLLSQGYSDFINRMHNQIPQITCDGKRLQVIVCSATLHSDVKKLSE
 KIMHFPTWVDLKGEDSVPTVHHVVPVNPKTDKLWERLGKNHIRTDDVHAKDNTRPGANSPEMWSEAIK
 ILKGEYAVRAIKEHKMDQAIIFCRTKIDCNLEQYFMQQGGGPKKGGHGFSCVCLHGDRKPHERKQNLER
 FKKGDVRFRICTDVAARGIDIHGVPIVINVTLPEKQNYVHRIGRVGRAERMGLAISLVATEKEKVYHV
 CSNRGKGCYNTRLKEDGGCTIWNEMQLLSEIEEHLNCTISQVEPDIKVPVDEFDGVKVTYQKRAAGGN
 YKGHVDVLAPTVQELAALKEAQTSTFLHLGYLPNQLFRFT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_134040

ORF Size: 2223 bp

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.

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:

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: [NM_134040.1](#), [NP_598801.1](#)

RefSeq Size: 2488 bp

RefSeq ORF: 2223 bp

Locus ID: 104721

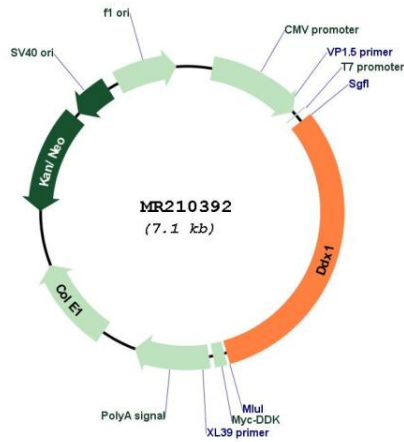
UniProt ID: [Q91VR5](#)

Cytogenetics: 12 A1.1

MW: 82.5 kDa

Gene Summary: Acts as an ATP-dependent RNA helicase, able to unwind both RNA-RNA and RNA-DNA duplexes. Possesses 5' single-stranded RNA overhang nuclease activity. Possesses ATPase activity on various RNA, but not DNA polynucleotides. May play a role in RNA clearance at DNA double-strand breaks (DSBs), thereby facilitating the template-guided repair of transcriptionally active regions of the genome. Together with RELA, acts as a coactivator to enhance NF-kappa-B-mediated transcriptional activation (By similarity). Acts as a positive transcriptional regulator of cyclin CCND2 expression (PubMed:19398953). Binds to the cyclin CCND2 promoter region (PubMed:19398953). Associates with chromatin at the NF-kappa-B promoter region via association with RELA. Binds to poly(A) RNA. May be involved in 3'-end cleavage and polyadenylation of pre-mRNAs. Component of the tRNA-splicing ligase complex required to facilitate the enzymatic turnover of catalytic subunit RTCB: together with archease (ZBTB8OS), acts by facilitating the guanylation of RTCB, a key intermediate step in tRNA ligation (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 (PubMed:21703541). Specifically binds (via helicase ATP-binding domain) on both short and long poly(I:C) dsRNA (PubMed:21703541).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210392