

Product datasheet for **RG204171**

DDX3 (DDX3X) (NM_001356) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DDX3 (DDX3X) (NM_001356) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DDX3
Synonyms:	CAP-Rf; DBX; DDX3; DDX14; HLP2; MRX102; MRXSSB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG204171 representing NM_001356
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGTCATGTGGCAGTGAAAAATGCGCTCGGGCTGGACCAGCAGTTTGTCTGGCCTAGACCTGAACCTCTT
CAGATAATCAGAGTGGAGGAAGTACAGCCAGCAAAGGGCGCTATATTCCTCCTCATTAAAGGAACCGAGA
AGCTACTAAAGGTTTCTACGATAAAGACAGTTCAGGGTGGAGTTCTAGCAAAGATAAGGATGCGTATAGC
AGTTTTGGATCTCGTAGTGATTCAAGAGGGAAGTCTAGCTTCTTCAGTGATCGTGGAAAGTGGATCAAGGG
GAAGGTTTGATGATCGTGGACGGAGTGATTACGATGGCATTGGCAGCCGTGGTACAGAAAGTGGCTTTGG
CAAATTTGAACGTGGTGGAAACAGTCGCTGGTGTGACAAATCAGATGAAGATGATTGGTCAAACCACTC
CCACCAAGTGAACGCTTGAACAGGAACCTTTTCTGGAGGCAACACTGGGATTAATTTTGGAAAAACG
ATGACATTCAGTTGAGGCAACAGGCAACAACCTGTCTCCACATATTGAAAGTTTCAGTGATGTTGAGAT
GGGAGAAATTATCATGGGAAACATTGAGCTTACTCGTTATACTCGCCAACTCCAGTGCAAAAGCATGCT
ATTCCTATTATCAAAGAGAAAAGAGACTTGATGGCTTGTGCCAAACAGGGTCTGGAAAACTGCAGCAT
TTCTGTTGCCATCTTGAGTCAGATTTATTAGATGGTCCAGGCGAGGCTTTGAGGGCCATGAAGAAAA
TGGAAAGTATGGGCGCCGAAACAATACCAATCTCCTTGGTATTAGCACCAACGAGAGATTGGCAGTA
CAGATCTACGAGGAAGCCAGAAAATTTTCATACCGATCTAGAGTTCGTCCTTGCCTGGTTTATGGTGGT
CCGATATTGGTCAGCAGATTCGAGACTTGAACGTGGATGCCATTTGTTAGTAGCCACTCCAGGACGCT
AGTGGATATGATGGAAAGAGGAAAGATTGGATTAGACTTTTCAAATACTGGTGTAGTAGAAGCTGAT
CGGATGTTGGATATGGGTTTGGCCTCAGATTCGTAAGTGAACAAGATACTATGCCTCAAAGG
GTGTCCGCCACACTATGATGTTTAGTGCTACTTTTCTAAGGAAATACAGATGCTGGCTCGTGATTTCTT
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TGGGTGGAAGAATCAGACAAACGGTCATTTCTGCTTGACCTCTAAATGCAACAGGCAAGGATTCAGTGA
CCTTAGTGTGTTGGAGACCAAAAAGGGTGCAGATTCTCTGGAGGATTTCTTATACCATGAAGGATACGC
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AAAAGCCCAATTTTAGTGGCTACAGCAGTAGCAGCAAGAGGACTGGACATTTCAAATGTGAAACATGTTA
TCAATTTGACTTGCCAAGTGATATTGAAGAATATGTACATCGTATTGGTCGTACGGGACGTGTAGGAAA
CCTTGGCCTGGCAACCTCATTCTTAAACGAGAGGAACATAAATATTACTAAGGATTTGTTGGATCTTCTT
GTTGAAGCTAAACAAGAAGTGCCGTCTTGGTTAGAAAACATGGCTTATGAACACCACTACAAGGGTAGCA
GTCGTGGACGTTCTAAGAGTAGCAGATTTAGTGGAGGGTTTGGTGCCAGAGACTACCGACAAAGTAGCGG
TGCCAGCAGTTCCAGCTTCAAGCAGCAGCCGCGCAAGCAGCAGCCGAGTGGCGGAGGTGGCCACGGTAGC
AGCAGAGGATTTGGTGGAGGTGGCTATGGAGGCTTTTACAACAGTGATGGATATGGAGGAAATTATAACT
CCCAGGGGTTGACTGGTGGGTAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG204171 representing NM_001356
 Red=Cloning site Green=Tags(s)

MSHVAVENALGLDQQFAGLDLNSSDNQSGGSTASKGRYIPPHLRNREATKGFYDKDSSGWSSSKDKDAYS
 SFGSRSDSRGKSSFFSDRGSGSRGRFDDRGRSDYDGIGSRGDRSGFGKFERGGNSRWCDKSDDEDDWSKPL
 PPSERLEQELFSGGNTGINFEKYDDIPVEATGNNCPPIHESFSDVEMGEIIMGNIELTRYTRPTPVQKHA
 IPIIIEKRDLMACAQTGSGKTA AFLLPILSQIYSDGPGREALRAMKENGRYGRRKQYPI SLVLAPTRELAV
 QIYEEARKFSYRSRVRPCVYVGGADIGQQIRDLE RGCHLLVATPGRLVDMMERGKIGLDFCKYLVLDEAD
 RMLDMGFEPQIRRIVEQDTMPPKGV RHTMMFSATFPKEIQMLARDFLDEYIFLAVGRVGSTENITQKVV
 WVEESDKRSFLDLLNATGKDSLTLV FVETKKGADSLDFLYHEGYACTSIHGDRSQRDREEALHQFRSG
 KSPILVATAVAARGLDISNVKHVINFDLPSDIEEYVHRIGRTGRVGNLGLATSFNERNINITKDLLDLL
 VEAKQEVPSWLENMAYEHYKGS SRGRSKSRFSGGF GARDYRQSSGASSSFSSSRASSRSRGGGGHGS
 SRFGGGGYGGFYNSDGYGGNYNSQGV DWWGN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001356

ORF Size: 1986 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001356.5](#)

RefSeq Size: 5433 bp

RefSeq ORF: 1989 bp

Locus ID: 1654

UniProt ID: [O00571](#)

Cytogenetics: Xp11.4

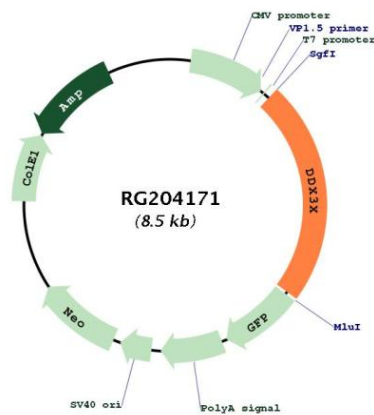
Domains: DEAD, helicase_C

Protein Families: ES Cell Differentiation/IPS

Protein Pathways: RIG-I-like receptor signaling pathway

Gene Summary:

The protein encoded by this gene is a member of the large DEAD-box protein family, that is defined by the presence of the conserved Asp-Glu-Ala-Asp (DEAD) motif, and has ATP-dependent RNA helicase activity. This protein has been reported to display a high level of RNA-independent ATPase activity, and unlike most DEAD-box helicases, the ATPase activity is thought to be stimulated by both RNA and DNA. This protein has multiple conserved domains and is thought to play roles in both the nucleus and cytoplasm. Nuclear roles include transcriptional regulation, mRNP assembly, pre-mRNA splicing, and mRNA export. In the cytoplasm, this protein is thought to be involved in translation, cellular signaling, and viral replication. Misregulation of this gene has been implicated in tumorigenesis. This gene has a paralog located in the nonrecombining region of the Y chromosome. Pseudogenes sharing similarity to both this gene and the DDX3Y paralog are found on chromosome 4 and the X chromosome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]

Product images:

Circular map for RG204171