

## Product datasheet for **SC119279**

### **DDX3 (DDX3X) (NM\_001356) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	DDX3 (DDX3X) (NM_001356) Human Untagged Clone
Tag:	Tag Free
Symbol:	DDX3
Synonyms:	CAP-Rf; DBX; DDX3; DDX14; HLP2; MRX102; MRXSSB
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC119279 sequence for NM\_001356 edited (data generated by NextGen Sequencing)

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ATGAGTCATGTGGCAGTGGAAAAATGCGCTCGGGCTGGACCAGCAGTTTGTGGCCTAGAC
CTGAACTCTTCAGATAATCAGAGTGGAGGAAGTACAGCCAGCAAAGGGCGCTATATTCCT
CCTCATTAAAGGAACCGAGAAGCTACTAAAGTTTCTACGATAAAGACAGTTCAGGGTGG
AGTTCTAGCAAAGATAAGGATGCGTATAGCAGTTTTGGATCTCGTAGTGATTCAAGAGGG
AAGTCTAGCTTCTTCAGTGATCGTGGAAGTGGATCAAGGGGAAGTTTTGATGATCGTGGA
CGGAGTGATTACGATGGCATTGGCAGCCGTGGTGACAGAAGTGGCTTTGGCAAATTTGAA
CGTGGTGGAAACAGTCGCTGGTGTGACAAATCAGATGAAGATGATTGGTCAAACCACTC
CCACCAAGTGAACGCTTGGAAACAGGAACTTTTTCTGGAGGCAACACTGGGATTAATTTT
GAGAAATACGATGACATTCCAGTTGAGGCAACAGGCAACAACACTGCCTCCACATATTGAA
AGTTTCAGTGATGTTGAGATGGGAGAAATTATCATGGGAAACATTGAGCTTACTCGTTAT
ACTCGCCCAACTCCAGTGCAAAAGCATGCTATTCTATTATCAAAGAGAAAAGAGACTTG
ATGGCTTGTGCCAAACAGGGTCTGAAAAACTGCAGCATTCTGTTGCCCATCTTGAGT
CAGATTTATTCAGATGGTCCAGGCGAGGCTTTGAGGGCCATGAAGGAAAATGGAAGGTAT
GGGCGCCGCAAAACAATACCCAATCTCCTTGGTATTAGCACCAACGAGAGATTGGCAGTA
CAGATCTACGAGGAAGCCAGAAAATTTTCATACCGATCTAGAGTTCGTCCTTGCCTGGTT
TATGGTGGTGCCGATATTGGTCAGCAGATTCGAGACTTGGAACTGGATGCCATTTGTTA
GTAGCCACTCCAGGACGTCTAGTGGATATGATGGAAAGAGGAAAGATTGGATTAGACTTT
TGCAAATACTTGGTGTAGATGAAGCTGATCGGATGTTGGATATGGGGTTTGAGCCTCAG
ATTCGTAGAATAGTCGAACAAGATACTATGCCTCAAAGGGTGTCCGCCACACTATGATG
TTTAGTGCTACTTTTCTAAGGAAATACAGATGCTGGCTCGTGATTTCTTAGATGAATAT
ATCTTCTTGGCTGTAGGAAGAGTTGGCTCTACCTCTGAAAACATCACACAGAAAGTAGTT
TGGGTGGAAGAATCAGACAAACGGTCATTCTGCTTGACCTCTAAATGCAACAGGCAAG
GATTCAGTACCTTAGTGTGTTGTGGAGACCAAAAAGGGTGCAGATTCTCTGGAGGATTTT
TTATACCATGAAGGATACGCATGTACCAGCATCCATGGAGACCGTTCTCAGAGGGATAGA
GAAGAGGCCCTTACCAGTTCGGCTCAGGAAAAAGCCCAATTTTAGTGGCTACAGCAGTA
GCAGCAAGAGGACTGGACATTTCAAATGTGAAACATGTTATCAATTTTGACTTGCCAAGT
GATATTGAAGAATATGTACATCGTATTGGTCGTACGGGACGTGTAGGAAACCTTGGCCTG
GCAACCTCATTCTTAAACGAGAGGAACATAAATATTAAGGATTTGTTGGATCTTCTT
GTTGAAGCTAAACAAGAAGTGCCGTCTTGGTTAGAAAACATGGCTTATGAACACCACTAC
AAGGGTAGCAGTCGTGGACGTTCTAAGAGTAGCAGATTTAGTGGAGGGTTTGGTGCCAGA
GACTACCACAAAAGTAGCGGTGCCAGCAGTTCCAGCTTACGACAGCAGCCGCGCAAGCAGC
AGCCCGAGTGGCGGAGGTGGCCACGGTAGCAGCAGAGGATTTGGTGGAGGTGGCTATGGA
GGCTTTTACAACAGTGATGGATATGGAGGAAATTATAACTCCCAGGGGGTTGACTGGTGG
GGTAACTGA

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Clone variation with respect to NM\_001356.3

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_001356 unedited  
 GGGATATTTGAAAACCACGCACTTTCACTATAGGGCGGCACGCGCAATTCGGCACGAGGC  
 GTGAGAGGGCCTTCGCGGTGGAACAAACTCGCTTAGCAGCGGAAGACTCCGAGTTCTC  
 GGTACTCTTCAGGGATGAGTCATGTGGCAGTGGAAAATGCGCTCGGGCTGGACCAGCAGT  
 TTGCTGGCCTAGACCTGAACTCTCAGATAATCAGAGTGGAGGAATTACAGCCAGCAAAG  
 GCGCCTATATTCCTCCTCATTTAAGGAACCGAGAAGCTACTAAAGTTTTCTACGATAAAG  
 ACAGTTACAGGTGGAGTTCTAGCAAAGATAAGGATGCGTATAGCAGTTTTGGATCTCGTA  
 GTGATTC AAGAGGAAGTCTAGCTTCTTCAGTGATCGTGGAAGTGGATCAAGGGGAAGGT  
 TTGATGATCGTGGACGGAGTGATTACGATGGCATTGGCAGCCGTGGTGACAGAAGTGGCT  
 TTGGCAAATTTGAACGTGGTGGAAACAGTCGCTGGTGTGACAAATCAGATGAAGATGATT  
 GGTCAAACCCTCCACCAAGTGAACGCTTGGAAACAGGAACTCTTTTCTGGAGGCAACA  
 CTGGGATTAATTTGAGAAATACGATGACATTCCAGTTGAGGCAACAGGCAACAACCTGTC  
 CTCACATATTGAAAGTTTCAGTGATGTTGAGATGGGAGAAATTATCATGGGAAACATTG  
 AGCTTACTCGTTATACTCGCCAACTCCAGTGCAAAAGCATGCTATTCTATTATCAAAG  
 AGAAAAGAGACTTGATGGCTTGTGCCAAACAGGGTCTGAAAAACTGCAGCATTCTGG  
 TGCCCATCTTGAGTCAGATTTATTCAGATGGTCCAGGCGAGGCTTTGAGGCCATGAANGA  
 NATGNANGTATGGNCGCGCAACATC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_001356 unedited  
 CTGGGCATGGCATGGCAACTTCCAGNCCAGNAAAGCACTGGGGNAGGGTACAGGGCAG  
 CCACCCGGTTCTGTTCAGGAAACAGCTATGACCGCGGCCCAATCTAGAGTCGAGTTTT  
 TTTTTTTTTTTTTTTCAGGCAAGAGCACTTTATTTACACCTCTGAAAATAAACCAATTG  
 ACAACAACAAAGGAGACTGTGCAGTTCAACTTTTTATTTAATAAAATCAGAATATGCAC  
 AGCACATGCAGTCTAGCATCTAACTAATAACAATAAGCAATTAATAAGCTACAGTGAC  
 TTGAGGTTCAATCTTACATTACAGCAAGTTAAATCCTTACATGATTTTTGAAACCTTAT  
 TAACTGAAAATATTGCTTGCTGATAAACTTGCTCAAATGCTATTGCTGAATGTACAAGT  
 CACTGATTATGCCAATAACAACAAGATAACCACATGTTTGAGGATTGCAATGTGCCAGAC  
 ATTCATAAAAAAAAAAAAAAAAAACACAACACTAAACAAAATCCACACAACAACATCTGA  
 GAATCTGGACACTTCACATCAGTGTGTTTGAAGTGTTCATTAATATCTTAAGACAAGTAT  
 ATCAAAACCTTGGCATGATTTAATTTCAAGTCGCCAATTTGTTTTACTAACATCAAAA  
 AGTTATGGCTACACTGCCAACGCCGGTCTGCTTAATTTGACTTAAGAATTTAATATGAC  
 TTAACATTAAGCTCCACTCCCCGAAATATAAAATTTCCCGCAACGGGGAACATTA  
 CACATTCAAGTGCCAGTGTGTTTGAACCTGGCTTTTGGGGCAAGTTTTCTTAAATTT  
 CCAAGAAAGAACGTTTAGGCTTAAAAATAAAATTTGGCTCAGAGGTCGCAAAATTTAGC  
 AAAACAACCGCCAAAGTGTCTGGAGACCTGCGGGCGAAAG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_001356

**Insert Size:**

4700 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](mailto: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](#)

**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\\_001356.2](#), [NP\\_001347.2](#)

**RefSeq Size:** 5322 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]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).