

## Product datasheet for **RC230297**

### **DDX4 (NM\_001166534) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	DDX4 (NM_001166534) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DDX4
Synonyms:	VASA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC230297 representing NM\_001166534  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGTCTAGGAATTTATTTTTAACCAACTCTCCAGAGTCTAGTAATGACTGCGAAGATAATCCAACAC  
 GGAACAGAGGGTTTTCCAAGAGAGGCGATAATGACTTAGACCCAGACGAATGTATGCAGCCACTGGTGG  
 CCTTTTTGGTTCTAGAAGACCAGTATTAAGTGGCACAGGTAATGGTGATACTTCTCAAAGCAGAAGTGGC  
 AGTGGAAGTGAACGAGATTCTTGAAGTCAGAAGCAGAAGGAGGAGAAAGTAGTGATACTCAAGGACCAA  
 AAGTGACCTACATACCCCTCCTCCACCTGAGGATGAGGACTCCATCTTGCACATTATCAGACAGGCAT  
 AAACCTCGACAAATACGACACTATTCTGTGGAAGTGTCTGGACATGATGCACCACCAGCAATCTGACT  
 TTTGAAGAAGCTAATCTGTCTCAGACACTGAATAACAACATTGCTAAAGCTGGTTATACTAAGCTTACTC  
 CTGTGCAAAAATACAGTATTCCTATCATACTTGCAGGACGAGATTTGATGGCTTGCCTCAAACAGGGTC  
 TGGGAAGACTGCGGCTTTCTCCTACCAATTTGGCTCATATGATGCATGATGGAATAACTGCCAGTCGT  
 TTTAAAGAGTTGCAGGAACCAGAGTGTATTATTGTAGCACAACCTCGAGAATTGGTCAACCAGATTTATT  
 TGGAAAGCCAGAAAATTTCTTTGGGACTTGTGAAGAGCTGTTGTTATATATGGGGGAACCCAGCTGGG  
 ACATTCATTCGACAAATAGTACAAGGCTGAATATATTATGTGCTACTCCTGGAAGACTGATGGATATC  
 ATAGGCAAAGAAAAGATTGGTCTCAAACAGATCAAATACTTAGTTTTGGATGAAGCTGATCGCATGTTGG  
 ATATGGGTTTTGGTCCAGAAATGAAGAAGTTAATTTCTTGCCAGGAATGCCATCAAAGGAACAGCGCCA  
 AACCTTATGTTCAAGTCAACTTTTCCAGAGGAAATCAAAGTTGGCTGCAGAGTTTTTAAAGTCAAAT  
 TATCTGTTTGTGCTGTTGGACAAGTGGTGGAGCATGTAGAGATGTTTCCAGCAGACCGTTCTCCAAGTTG  
 GCCAGTTCTCAAAAAGAGAAAAGCTCGTTGAAATCTGCGAAACATAGGGGATGAAAAGAATATGGTCTT  
 TGTGAAACTAAGAAAAAGCAGATTTTATTGCAACTTTTCTTTGCAAGAAAAATATCAACTACAAGT  
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 TTCTTGTGCTACTTCAGTAGCTGCCAGAGGGCTGGATATTGAAAATGTGCAACATGTTATCAATTTTGA  
 TCTTCTTCTACCATTGATGAATATGTTTCATCGAATTGGGCGTACTGGTCTGTTGGGAATACTGGCAGA  
 GCAATTTCTTTTTGATCTTGAATCGGATAACCATTTAGCACAGCCTCTAGTAAAAGTATTGACAGATG  
 CTAACAGGATGTTCTGCATGGTTGGAAGAAATGCCTTTAGTACATACATTCTGGCTTCAGTGGTAG  
 TACAAGAGGAAACGTGTTTGCATCAGTTGATACCAGAAAGGCAAGAGCACTTTGAACACAGCTGGGTTT  
 TCTTCTCACAGCTCCAATCCAGTAGATGATGAGTCATGGGAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230297 representing NM\_001166534  
 Red=Cloning site Green=Tags(s)

MGSRNFLTNPESSNDCEPNTRNRGFSKRGDNDLDPDECMQRTGGFLGSRPVLSGTNGDTSQSRSG  
 SGERDSWKSEAEGGESSDTQGPKVYIPPPPEDEDSIFAHYQTGINFDKYDTILVEVSGHDAPPAILT  
 FEEANLCQTLNINIAGAGYTKLTPVQKYSIPIILAGRDLMACAQTGSGKTAFLPILAHMMHDGITASR  
 FKELQEPECIIVAPTRELVNQIYLEARKFSFGTCVRAVVIYGGTQLGHSIRQIVQGCNLCATPGRLMID  
 IGKEKIGLKQIKYLVLDEADRMLDMGFGPEMKKLSICPGMPSKEQRQTLMFATFPEEIQLAAEFLKSN  
 YLFFVAVGQVGGACRDVQQTVLQVGQFSKREKLEILRNIGDERTMVFVETKKKADF IATFLCQEKISTTS  
 IHGDREQREREQALGDFRFGKCPVLVATSVAARGLDIENVQHVINFDPSTIDEYVHRIGRTGRCGNTGR  
 AISFFDLESNDHLAQPLVKVLTDAQQDVPALWEEIAFSTYIPGFSGSTRGNVASFVDTRKSTLNTAGF  
 SSSQAPNPVDESVD

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8068\\_a04.zip](https://cdn.origene.com/chromatograms/mk8068_a04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001166534

**ORF Size:** 1725 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\\_001166534.1](#), [NP\\_001160006.1](#)

**RefSeq ORF:** 1728 bp

**Locus ID:** 54514

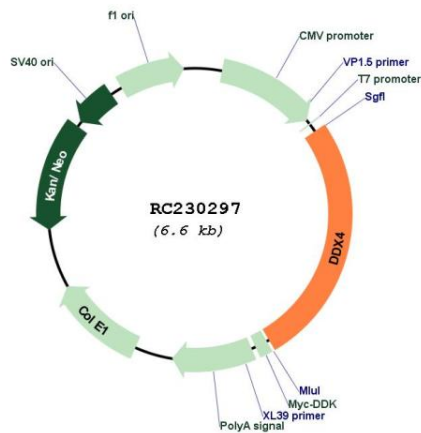
**UniProt ID:** [Q9NQI0](#)

**Cytogenetics:** 5q11.2

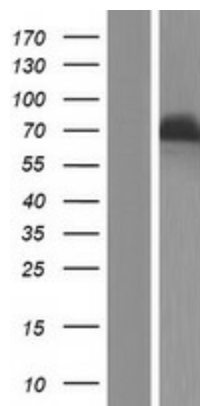
**MW:** 63.7 kDa

**Gene Summary:**

DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. This gene encodes a DEAD box protein, which is a homolog of VASA proteins in *Drosophila* and several other species. The gene is specifically expressed in the germ cell lineage in both sexes and functions in germ cell development. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2009]

**Product images:**


Circular map for RC230297



Western blot validation of overexpression lysate (Cat# [LY433297]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230297 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).