

## Product datasheet for **RG230297**

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

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	DDX4 (NM_001166534) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DDX4
Synonyms:	VASA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG230297 representing NM\_001166534  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGGTCTAGGAATTTATTTTTAACCAACTCTCCAGAGTCTAGTAATGACTGCGAAGATAATCCAACAC  
 GGAACAGAGGGTTTTCCAAGAGAGGCGATAATGACTTAGACCCAGACGAATGTATGCAGCCCACTGGTGG  
 CCTTTTTGGTTCTAGAAGACCAGTATTAAGTGGCACAGGTAATGGTGATACTTCTCAAAGCAGAAGTGGC  
 AGTGGAAGTGAACGAGATTCTTGAAGTCAGAAGCAGAAGGAGGAGAAAGTAGTGATACTCAAGGACCAA  
 AAGTGACCTACATACCCCTCTCCACCTGAGGATGAGGACTCCATCTTGCACATTATCAGACAGGCAT  
 AAACCTCGACAAATACGACACTATTCTGTGGAAGTGTCTGGACATGATGCACCACCAGCAATCTGACT  
 TTTGAAGAAGCTAATCTGTCTCAGACACTGAATAACAACATTGCTAAAGCTGGTTATACTAAGCTTACTC  
 CTGTGCAAAAATACAGTATTCCTATCATACTTGCAGGACGAGATTTGATGGCTTGCCTCAAACAGGGTC  
 TGGGAAGACTGCGGCTTTCTCCTACCAATTTGGCTCATATGATGCATGATGGAATAACTGCCAGTCGT  
 TTTAAAGAGTTGCAGGAACCAGAGTGTATTATTGTAGCACAACCTCGAGAATTGGTCAACCAGATTTATT  
 TGGAAAGCCAGAAAATTTCTTTGGGACTTGTGTAAAGAGCTGTTGTTATATATGGGGGAACCCAGCTGGG  
 ACATTCATTCGACAAATAGTACAAGGCTGAATATATTATGTGCTACTCCTGGAAGACTGATGGATATC  
 ATAGGCAAAGAAAAGATTGGTCTCAAACAGATCAAATACTTAGTTTTGGATGAAGCTGATCGCATGTTGG  
 ATATGGGTTTTGGTCCAGAAATGAAGAAGTTAATTTCTTGCCAGGAATGCCATCAAAGGAACAGCGCCA  
 AACCTTATGTTCACTGCAACTTTCCAGAGGAAATCAAAGGTTGGCTGCAGAGTTTTAAAGTCAAAT  
 TATCTGTTTGTGCTGTTGGACAAGTGGTGGAGCATGTAGAGATGTTTCCAGCAGACCGTTCTCCAAGTTG  
 GCCAGTTCTCAAAAAGAGAAAAGCTCGTTGAAATCTGCGAAACATAGGGGATGAAAGAACCATAGTCTT  
 TGTTGAAACTAAGAAAAAAGCAGATTTTATTGCAACTTTCTTTGTCAAGAAAAAATCAACTACAAGT  
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 TTCTTGTGCTACTTCAGTAGCTGCCAGAGGGCTGGATATTGAAAATGTGCAACATGTTATCAATTTTGA  
 TCTTCTTCTACCATTGATGAATATGTTTCATCGAATTGGGCGTACTGGTCTGTGGGAATACTGGCAGA  
 GCAATTTCTTTTTGATCTTGAATCGGATAACCATTTAGCACAGCCTCTAGTAAAAGTATTGACAGATG  
 CTCAACAGGATGTTCTGCATGGTTGGAAGAAATGCCTTTAGTACATACATTCTGGCTTCAGTGGTAG  
 TACAAGAGGAAACGTGTTTGCATCAGTTGATACCAGAAAGGCAAGAGCACTTTGAACACAGCTGGGTTT  
 TCTTCTCACAGCTCCAATCCAGTAGATGATGAGTCATGGGAT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG230297 representing NM\_001166534  
 Red=Cloning site Green=Tags(s)

MGSRNFLTNSPESSNDCEPNTRNRGFSKRGDNDLDPDECMQRTGGLFGSRRPVLSGTNGDTSQSRSR  
 SGSERDSWKSEAEGGESDQTGPKVYIIPPPPEDEDSIFAHYQTGINFDKYDILVEVSGHDAPPAILT  
 FEEANLCQTLNINIAGAGYKLTTPVQKYSIPIILAGRDLMACAQTGSGKTAFFLLPILAHMMHDGITASR  
 FKELQEPECIIVAPTRELVNQIYLEARKFSFGTCVRAVVIYGGTQLGHSIRQIVQGCNLCATPGRMLDI  
 IGKEKIGLKQIKYLVLDEADRMLDMGFGPEMKKLSICPGMPSKEQRQTLMSATFPPEIQRLLAAEFLKSN  
 YLFFVAVGQVGGACRDVQQTVLQVGQFSKREKLVEILRNIGDERTMVFVETKKKADFIAFLCQEKISTTS  
 IHGDREQREREQALGDFRFGKCPVLVATSVAARGLDIENVQHVINFDLPSTIDEYVHRIGRTGRCGNTGR  
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 SSSQANPVVDESWD

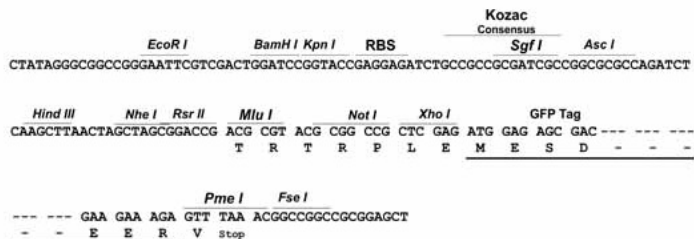
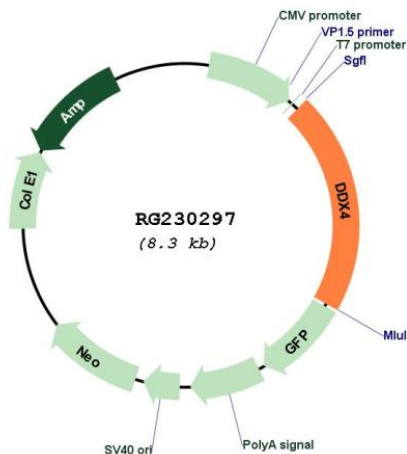
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:


**Plasmid Map:**


ACCN: NM\_001166534

ORF Size: 1725 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001166534.1</a> , <a href="#">NP_001160006.1</a>
<b>RefSeq Size:</b>	2379 bp
<b>RefSeq ORF:</b>	1728 bp
<b>Locus ID:</b>	54514
<b>UniProt ID:</b>	<a href="#">Q9NQI0</a>
<b>Cytogenetics:</b>	5q11.2
<b>Gene Summary:</b>	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 <i>Drosophila</i> 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]