

## Product datasheet for **MG226456**

### **Ddx4 (NM\_010029) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ddx4 (NM_010029) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ddx4
Synonyms:	AV206478; Mvh; VASA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MG226456 representing NM\_010029  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGGAGATGAAGATTGGGAGGCAGAAATACTCAAACCTCACGTGTCTTCTATGTTCTCTGATTTTGAGA  
AGGATAAATATTCTTCTGGAGCAAATGGAGACTTTTTAACAGGACTTCAGCTTCATCAGATATTGGCGA  
GTCTAGTAAAAAGAGAACACATCTACAACCTGGTGGCTTTGGAAGAGGAAAGGGCTTTGGAACAGAGGT  
TTTTTAAATAACAAGTTTGAAGAAGGTGATAGCTCTGGTTTCTGGAAAGAGTCTAATAATGACTGTGAAG  
ATAATCAGACTCGAAGCAGAGGGTTTTCCAAGCGAGGTGGCTGCCAAGATGGAACGATTGAGAAGCATC  
AGGCCCGTTGAGAAGAGGGGAAGAGGCAGTTCCGAGGCTGCCGTGGAGGATTTGGTCTAGGAAGACCA  
AATAGTGAATCTGACCAAGATCAGGGGACACAGCGTGGTGGTGGCCTTTTTGGTTCTAGGAAACCAGCAG  
CAAGTGATTGAGCAATGGTGACTTACCAAAGCAGAAGTGAAGTGGTCGAGGTGGTTACAAAGTTTT  
AAATGAAGAAGTAGTAACAGGTTCTGGAAGAATTCTTGAAGTCAGAACTGAAGGAGGTGAAAGCAGT  
GATAGTCAAGGTCCAAAAGTGACATATATACCCCTCCTCCACCAGAGGATGAGGACTCCATCTTTGCAC  
ATTATCAGACAGGCATAAACTTTGATAAATATGACACCATACTTGTGAAAGTATCTGGACATGATGCACC  
ACCGGCAATTTTGACTTTTGAAGAAGCTAATCTCTGTGACACTGAATAACAACATTGCTAAAGCTGGC  
TATACTAAGCTTACTCTGTGCAGAAGTACAGCATTCCCATTGTATTAGCAGGACGAGATTTGATGGCTT  
GTGCTCAAACAGGGTCTGGGAAGACTGCAGTTTTCTCTTGCCTATTTGGCTCATATGATGCGGGATGG  
AATAACTGCCAGTCGCTTAAAGAACTGCAGGAACCAGAGTGTATTATTGTAGCACCAACTCGAGAACTG  
ATCAACCAAAATTTACTTGAAGCCAGAAAATTTCTTTGGGACTTGTGAAGAGCTGTGGTTCATATAG  
GAGGAACCCAGTTTGGTCATTGAGTTCGACAGATAGTACAAGGGTGTAAACATATTGTGTGCTACTCCAG  
GAGGCTGATGGACATCATAGGCAAAGAAAAGATTGGCCTCAAACAAGTCAAGTACTTAGTTTTGGATGAA  
GCTGATCGAATGTTGGATATGGTTTTGGACCAGAGATGAAGAACTAATTTCTGTCCAGGAATGCCAT  
CAAAGGAACAACGCCAAACCTTTTATTAGTGTACTTTCCAGAAGAAATCCAGAGGTTGGCTGGGGA  
CTTTCTAAAGTCCAGTTACTTGTGTGCTGTTGGGCAAGTGGGAGGAGCTTGCAGAGATGTTGAGCAG  
ACGATCCTTCAAGTTGGCCAGTATCAAAAAGAGAAAAGCTTGTGAGATTCTACGAAACATAGGTGATG  
AAAGAACTATGGTCTTTGTTGAAACCAAGAAAAAAGCCGATTTTCATTGCAACTTTTCTTTGTCAAGAAA  
AATATCAACTACAAGTATTCATGGTATCGGGAGCAGAGGGAGAGAGCAAGCTCTGGAGATTTTCGC  
TGTGAAAGTGCCAGTCTTGTGCTACTTCAGTGGCTGCCAGAGGGCTTGATATTGAAAATGTTCAAC  
ATGTTATCAATTTGACCTTCTTCTACCATTTGATGAGTATGTTTCATCGAATTGGACGCACTGGCCGCTG  
TGGAAATACTGGCAGAGCGATTTCTTTTTTGTACTGACTCTGATAATCATTAGCACAGCCTCTAGTT  
AAAGTACTGTGACAGCTCAACAGGATGTCCCGCATGGCTAGAAGAGATTGCCTTCAGTACCTATGTGC  
CTCCCAGCTTTCAGTAGCAGCACAAGAGGGGGGCTGTGTTTGCATCTGTTGACACGAGGAAGAATTACCA  
GGGCAAGCACAGTGAATACAGCGGGGATTTCTTCTTCAAGCTCCCAATCCAGTTGATGACGAGTCA  
TGGGAT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG226456 representing NM\_010029  
 Red=Cloning site Green=Tags(s)

MGDEDWEAEILKPHVSSYPVFEKDKYSSGANGDTFNRTSASSDIGESSKKENTSTTGGFGRGKGFGNRG  
 FLNKKFEEDSSGFWKESNNDCEDNQTRSRGFSKRGGCQDGNDEASGPFRRGGRSFRGCRGGFGLGRP  
 NSESDQDQGTQRGGGLFGRKPAASDSGNGDTYQSRSGSGRGGYKGLNEEVVTGSGKNSWKSETEGGESS  
 DSQGPKVITYIPPPPEDEDSIFAHYQTGINFDKYDTILVEVSGHDAPPAILTFEEANLCQTLNNNIAKAG  
 YTKLTPVQKYSIPVLAGRDLMACAQTGSGKTAFFLLPILAHMMRDGITASRFKELQEPECIIVAPTREL  
 INQIYLEARKFSFGTCVRAVVIYGGTQFGHSVRQIVQGCNILCATPGRMLDIIGKEKIGLKQVKYLVLDE  
 ADRMLDMFGPEMKKLISCPGMPKSKEQRQTLFSAFPPEEQRLAGDFLKSSYLFVAVGQVGGACRDVQQ  
 TILQVGGYSKREKLEILRNIGDERTMVFVETKKKADFIATFLCQEKISTTSIHGDREQREREQALGDFR  
 CGKCPVLVATVAARGLDIENVQHVINFDLPSTIDEYVHRIGRTGRCGNTGRAISFFDTSNDHLAQPLV  
 KVLSDAQDVPWALEEIAFSTYVPPSFSSTRGGAVFASVDTRKNYQGKHTLNTAGISSSQANPVDDES  
 WD

TRTRPLE - GFP Tag - V

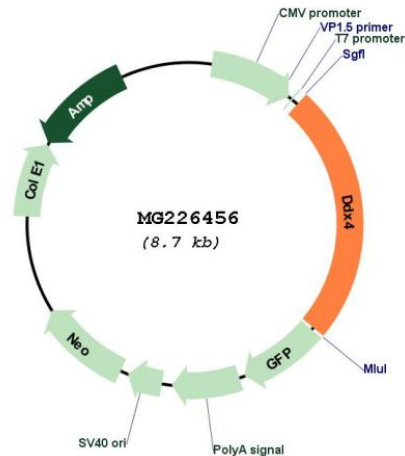
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_010029

ORF Size: 2106 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](#)

**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).

<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_010029.2</a> , <a href="#">NP_034159.1</a>
<b>RefSeq Size:</b>	2772 bp
<b>RefSeq ORF:</b>	2109 bp
<b>Locus ID:</b>	13206
<b>UniProt ID:</b>	<a href="#">Q61496</a>
<b>Cytogenetics:</b>	13 63.87 cM
<b>Gene Summary:</b>	ATP-dependent RNA helicase required during spermatogenesis to repress transposable elements and preventing their mobilization, which is essential for the germline integrity (PubMed:20439430, PubMed:28633017). Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposons (PubMed:20439430, PubMed:28633017). Involved in the secondary piRNAs metabolic process, the production of piRNAs in fetal male germ cells through a ping-pong amplification cycle (PubMed:20439430, PubMed:28633017). Required for PIWIL2 slicing-triggered piRNA biogenesis: helicase activity enables utilization of one of the slice cleavage fragments generated by PIWIL2 and processing these pre-piRNAs into piRNAs (PubMed:28633017).[UniProtKB/Swiss-Prot Function]