

Product datasheet for **MR226455**

Ddx4 (NM_001145885) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ddx4 (NM_001145885) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ddx4
Synonyms:	AV206478; Mvh; VASA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR226455 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGGAGATGAAGATTGGGAGGCAGAAATACTCAAACCTCACGTGTCTTCTACGTTCTCTGTATTTGAGA
AGGATAAATATTCTTCTGGAGCAAATGGAGACTTTTTAACAGGACTTCAGCTTCATCAGAAATGGAAGA
TGGCCTTCTGGAAGAGATGATTCATGAGAAAGTGGGTTTCTTCTGGAAGAAGTTAGGAAGCAGAGAT
ATTGGCGAGTCTAGTAAAAAGAGAACACATCTACAACCTGGTGGCTTTGGAAGAGGAAAGGGCTTTGGAA
ACAGAGGTTTTTAAATAACAAGTTTGAAGAAGGTGATAGCTCTGGTTTCTGGAAGAGTCTAATAATGA
CTGTGAAGATAATCAGACTCGAAGCAGAGGGTTTTCCAAGCGAGGTGGCTGCCAAGATGGAACGATTCA
GAAGCATCAGGCCGTTGAGAAGAGGGGAAGAGGCAGTTCCGAGGCTGCCGTGGAGGATTTGGTCTAG
GAAGACCAAAATAGTGAATCTGACCAAGATCAGGGGACACAGCGTGGTGGTGGCCTTTTTGGTTCTAGGAA
ACCAGCAGCAAGTGATTCAGGCAATGGTGACACTTATCAAAGCAGAAGTGAAGTGGTTCGAGGTGGTTAC
AAAGGTTTAAATGAAGAAGTAGTAACAGGTTCTGGAAAGAATTCTTGAAGTCAAGAACTGAAGGAGGTG
AAAGCAGTGATAGTCAAGGTCCAAAAGTGACATATATACCCCTCCTCCACCAGAGGATGAGGACTCCAT
CTTTGCACATTATCAGACAGGCATAAACTTTGATAAATATGACACCATACTTGTGGAAGTATCTGGACAT
GATGCACCACCGCAATTTTACTTTTGAAGAAGCTAATCTCTGTGACAGACTGAATAACAACATTGCTA
AAGCTGGCTATACTAAGCTTACTCTGTGACAGAGTACAGCATTCCCATTGTATTAGCAGGACGAGATTT
GATGGCTTGTGCTCAAACAGGGTCTGGGAAGACTGCAGCTTTTCTTGCCTATTTTGGCTCATATGATG
CGGGATGGAATAACTGCCAGTCGCTTTAAAGAAGTGCAGGAACCCAGAGTATTATTGTAGCACCAACTC
GAGAAGTGCACCAAAATTTACTTTGAAGCCAGAAAATTTTCTTTTGGGACTTGTGAAGAGCTGTGGT
CATATATGGAGGAACCCAGTTTGGTCATTCAAGTTCGACAGATAGTACAAGGGTGAACATATTGTGTGCT
ACTCCAGGGAGGCTGATGGACATCATAGGCAAAGAAAAGATTGGCCTCAAACAAGTCAAGTACTTAGTTT
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AATGCCATCAAAGGAACAACGCCAAACCCTTTTATTCAAGTGTACTTTTCCAGAAGAAAATCCAGAGGTTG
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TTCAGCAGACGATCCTTCAAGTTGGCCAGTATTCAAAAAGAGAAAAGCTTGTGAGATTCTACGAAACAT
AGGTGATGAAAGAACTATGGTCTTTGTTGAAACCAAGAAAAAGCCGATTCATTGCAACTTTTCTTTGT
CAAGAAAAAATCAACTACAAGTATTCATGGTATCGGGAACAGAGGGAGAGAGCAAGCTCTTGGAG
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TGTTCAACATGTTATCAATTTTACCTTCTACCATTGATGAGTATGTTTCATCGAATTGGACGCACT
GGCCGCTGTGGAATACTGGCAGAGCGATTTCTTTTTTGTACTGACTCTGATAATCATTTAGCACAGC
CTCTAGTTAAAGTACTGTGACAGCTCAACAGGATGTCCCGCATGGCTAGAAGAGATTGCCTTCAGTAC
CTATGTGCTCCAGCTTCAGTAGCAGCACAAAGAGGGGGGGTGTGTTTGCATCTGTTGACACGAGGAAG
AATTACCAGGGCAAGCACACGTTGAATACAGCGGGGATTTCTTCTTCAAGCTCCCAATCCAGTTGATG
ACGAGTCATGGGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR226455 protein sequence
 Red=Cloning site Green=Tags(s)

MGDEDWEAEILKPHVSSYPVFEKDKYSSGANGDTFNRTSASSEMEDGPSGRDDFMRSGFPSGRSLGSRD
 IGESSKKENTSTTGGFGRGKGFNGRFLNKKFEEGDSSGFWKESNNDCEDNQTRS RGF SKRGGCQDGNDS
 EASGPFRRGGRGSFRGCRGGFGLGRPNSESDQDQGTQRGGGLFGRKPAASDSGNGDTYQSRSGSRRGGY
 KGLNEEVVTGSGKNSWKSETEGGESDSDSQGPKVTYIPPPPEDEDSIFAHYQTGINFDKYDTILVEVSGH
 DAPPAILTFEEANLCQTLNNNIAKAGYTKLTPVQKYSIPIVLAGRDLMACAQTGSGKTAAFLLPILAHMM
 RDGITASRFKELQEPECIIVAPTRELINQIYLEARKFSFGTCVRAVVIYGGTQFGHSVRQIVQGCNILCA
 TPGRLMDIIGKEIGLQKQVYLVLEADRMLDMGFGPEMKKLISCPGMPKSKEQRQTLLFSATFPEEIQRLL
 AGDFLKSSYL FVAVGQVGGACRDVQQTILQVQYYSKREKLEILRNIGDERTMV FVETKKKADFIATFLC
 QEKISTTSIHGDREQREREQALGDFRCGKCPVLVATSVAAARGLDIENVQHVINFDPSTIDEYVHRIGRT
 GRCGNTGRAISFFDTSNDHLAQPLVKVLSAQDQVPAWLEEIAFSTYVPPSFSSSTRGGAVFASVDTRK
 NYQGHKTLNTAGISSSQAPNPVDDSWD

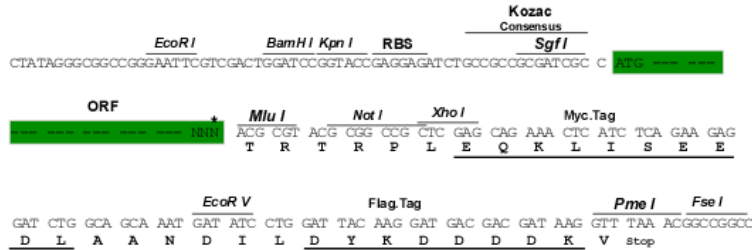
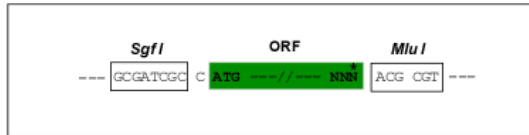
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



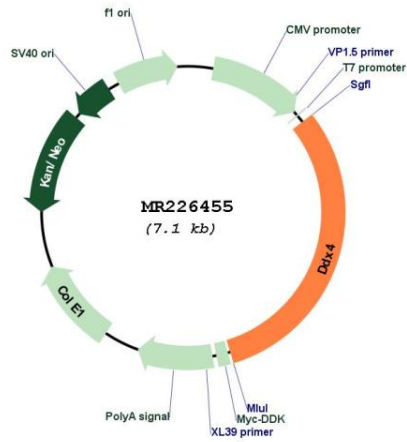
* The last codon before the Stop codon of the ORF

ACCN: NM_001145885

ORF Size: 2187 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:	<ol style="list-style-type: none"> 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_001145885.1 , NP_001139357.1
RefSeq Size:	2850 bp
RefSeq ORF:	2187 bp
Locus ID:	13206
Cytogenetics:	13 63.87 cM
MW:	79.3 kDa
Gene Summary:	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]

Product images:



Circular map for MR226455