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Product datasheet for RG204837

DHX58 (NM_024119) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DHX58 (NM_024119) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DHX58
Synonyms:	D11LGP2; D11lgp2e; LGP2; RLR-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG204837 representing NM_024119
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCTTCGGTCCTACCAATGGGAGGTGATCATGCCTGCCCTGGAGGGCAAGAATATCATCATCTGGC
TGCCCACGGGTGCCGGGAAGACCCGGGCGGCTGCTTATGTGGCCAAGCGGCACCTAGAGACTGTGGATGG
AGCCAAGGTGGTTGTATTGGTCAACAGGGTGCACCTGGTGACCCAGCATGGTGAAGAGTTCAGGCGCATG
CTGGATGGACGCTGGACCGTGACAACCCTGAGTGGGGACATGGGACCACGTGCTGGCTTTGGCCACCTGG
CCCGGTGCCATGACCTGCTCATCTGCACAGCAGAGCTTCTGCAGATGGCACTGACCAGCCCCGAGGAGGA
GGAGCACGTGGAGCTCACTGTCTTCTCCCTGATCGTGGTGGATGAGTGCCACCACACGCACAAGGACACC
GTCTACAACGTCATCATGAGCCAGTACCTAGAACTTAAACTCCAGAGGGCACAGCCGCTACCCCAGGTGC
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GCTCTGTGCCAACTTGGACACGTGGTGCATCATGTCACCCCAGAACTGCTGCCCCCAGCTGCAGGAGCAC
AGCCAACAGCCTTGCAAACAGTACAACCTCTGCCACAGGCGCAGCCAGGATCCGTTTGGGGACTTGCTGA
AGAAGCTCATGGACCAAATCCATGACCACCTGGAGATGCCTGAGTTGAGCCGGAAATTTGGGACGCAAAT
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GCTGGCCCTGTTCGATGACCGCAAGAATGAGCTGGCCCACTTGGCAACTCATGGCCCAGAGAATCCAAAA
CTGGAGATGCTGGAAAAGATCCTGCAAAGGCAGTTCAGTAGCTCTAACAGCCCTCGGGGTATCATCTTCA
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CATCCGGGCCCAGCTACTGATTGGGGCTGGGAACAGCAGCCAGAGCACCCACATGACCCAGAGGGACCAG
CAAGAAGTGATCCAGAAGTTCCAAGATGGAACCCTGAACCTTCTGGTGGCCACGAGTGTGGCGGAGGAGG
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GTGGCTGTGGGCCATGGCAGCGACCTGCGGAAGGTGGAGGGCACCCACCATGTCAATGTGAACCCCAACT
TCTCGAACTACTATAATGTCTCCAGGGATCCTGTGGTCATCAACAAAGTCTTCAAGGACTGGAAGCCTGG
GGGTGTCATCAGCTGCAGGAACTGTGGGGAGGTCTGGGGTCTGCAGATGATCTACAAGTCAGTGAAGCTG
CCAGTGCTCAAAGTCCGCAGCATGCTGCTGGAGACCCCTCAGGGGCGGATCCAGGCCAAAAAGTGGTCCC
GCGTGCCCTTCTCCGTGCCTGACTTTGACTTCCTGCAGCATTGTGCCGAGAACTTGTCGGACCTCTCCCT
GGAC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

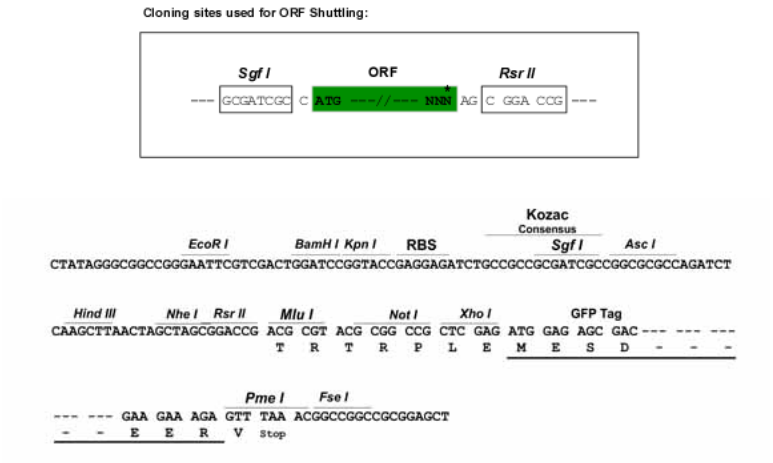
>RG204837 representing NM_024119
Red=Cloning site Green=Tags(s)

MELRSYQWEVIMPALEGKNIIIWLPTGAGKTRAAAYVAKRHLETVDGAKVVVLVNRVHLVTQHGEEFRRM
LDGRWTVTTLSGDMGPRAGFGHLARCHDLLICTAELLQMALTSPEEEEHVELTVFSLIVVDECHHTHKDT
VYNVIMSQYLELKLQRAQPLPQVLGLTASPGTGGASKLDGAINHVLQLCANLDTWCIMSPQNCCPQLQEH
SQQPCKQYNLCHRRSQDPFGDLLKKLMDQIHDHLEMPELSRKFGTQMYEQQVVKLSEAAALAGLQEQRVY
ALHLRRYNDALLIHDTVRAVDALAALQDFYHREHVTKTQILCAERRLLALFDDRKNELAHLATHGPENPK
LEMLEKILQRQFSSSNSPRGIIFTRTRQSAHSLLLWLQQQQGLQTVDIRAQLLIGAGNSSQSTHMTQRDQ
QEVIQKFQDGTLNLLVATSVAEEGLDIPHCNVVVRYGLLTNEISMVQARGRARADQSVYAFVATEGSREL
KRELINEALETLMEQAVAAVQKMDQAEYQAKIRDLQQAALTKRAAQAAQRENQRQQFPVEHVQLLCINCM
VAVGHGSDLRKVEGTHHVNVNPNFSNYYNVSRDPVVINKVFKDWKPGGVISCRNCGEVWGLQMIYKSVKL
PVLKVRSMLLETPQGRIQAKKWSRVPFSVPDFDFLQHCAENLSDLSLD

SGPTRTRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



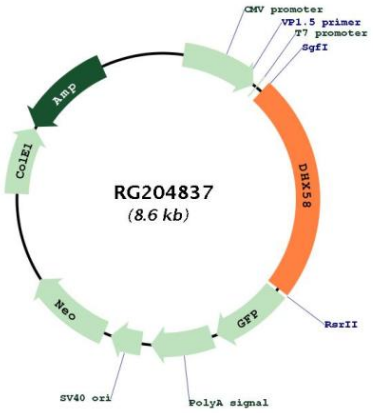
ACCN: NM_024119

ORF Size: 2034 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:	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_024119.3
RefSeq Size:	2613 bp
RefSeq ORF:	2037 bp
Locus ID:	79132
UniProt ID:	Q96C10
Cytogenetics:	17q21.2
Protein Pathways:	RIG-I-like receptor signaling pathway

Gene Summary: Acts as a regulator of DDX58/RIG-I and IFIH1/MDA5 mediated antiviral signaling. Cannot initiate antiviral signaling as it lacks the CARD domain required for activating MAVS/IPS1-dependent signaling events. Can have both negative and positive regulatory functions related to DDX58/RIG-I and IFIH1/MDA5 signaling and this role in regulating signaling may be complex and could probably depend on characteristics of the infecting virus or target cells, or both. Its inhibitory action on DDX58/RIG-I signaling may involve the following mechanisms: competition with DDX58/RIG-I for binding to the viral RNA, binding to DDX58/RIG-I and inhibiting its dimerization and interaction with MAVS/IPS1, competing with IKBKE in its binding to MAVS/IPS1 thereby inhibiting activation of interferon regulatory factor 3 (IRF3). Its positive regulatory role may involve unwinding or stripping nucleoproteins of viral RNA thereby facilitating their recognition by DDX58/RIG-I and IFIH1/MDA5. Involved in the innate immune response to various RNA viruses and some DNA viruses such as poxviruses, and also to the bacterial pathogen Listeria monocytogenes. Can bind both ssRNA and dsRNA, with a higher affinity for dsRNA. Shows a preference to 5'-triphosphorylated RNA, although it can recognize RNA lacking a 5'-triphosphate.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG204837