

Product datasheet for **SC115033**

DDX58 (NM_014314) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: DDX58 (NM_014314) Human Untagged Clone
Tag: Tag Free
Symbol: DDX58
Synonyms: RIG-I; RIG1; RIGI; RLR-1; SGMRT2
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_014314 edited
 GAATTCGGCACGAGGAAAGTTCCCTATGCAGCTCCGCCTCGCGTCCGGCCTCATTTCTCG
 GAAATCCCTGCTTTCCCGCTCGCCACGCCCTCCTCTACCCGGCTTTAAAGCTAGTGA
 GGCACAGCCTGCGGGAAACGTAGCTAGCTGCAAGCAGAGCCGGCATGACCACCGAGCAG
 CGACGCAGCCTGCAAGCCTTCCAGGATTATATCCGGAAGACCCTGGACCTACCTACATC
 CTGAGCTACATGGCCCCCTGGTTTAGGGAGGAAGAGGTGCAGTATATTCAGGCTGAGAAA
 AACAAAGAGGCCCAATGGAGGCTGCCACACTTTTTCTCAAGTTCCTGTTGGAGCTCCAG
 GAGGAAGGCTGGTCCGTGGCTTTTTGGATGCCCTAGACCATGCAGGTTATTCTGGACTT
 TATGAAGCCATTGAAAGTTGGGATTTCAAAAAATTGAAAAGTTGGAGGAGTATAGATTA
 CTTTTAAACGTTTACAACCAGAATTTAAACCAGAATTATCCCAACCGATATCATTCT
 GATCTGTCTGAATGTTTAAATTAATCAGGAATGTGAAGAAATTCACAGATTTGCTCTACT
 AAGGGGATGATGGCAGGTGCAGAGAAATTTGGTGAATGCCTTCTCAGATCAGACAAGGAA
 AACTGGCCAAAACCTTTGAACTTGCTTTGGAGAAAGAAAGGAACAAGTTCAGTGAAGT
 TGGATTGTAGAGAAAGGTATAAAAGATGTTGAAACAGAAGATCTTGAGGATAAGATGGAA
 ACTTCTGACATACAGATTTTCTACCAAGAAGATCCAGAATGCCAGAATCTTAGTGAGAAT
 TCATGTCCACCTCAGAAGTGTCTGATACAAACTGTACAGCCCATTTAAACCAAGAAAT
 TACCAATTAGAGCTTGCTTTGCCTGCTATGAAAGGAAAAACACAATAATATGTGCTCCT
 ACAGGTTGTGAAAAACCTTTGTTTCACTGCTTATATGTGAACATCATCTTAAAAATTC
 CCACAAGGACAAAAGGGAAAGTTGCTTTTTTGGCAATCAGATCCCAGTGTATGAACAG
 CAGAAATCTGTATTCTCAAAATACTTTGAAAGACATGGGTATAGAGTTACAGGCATTTCT
 GGAGCAACAGCTGAGAATGTCCCAGTGGAAACAGATTGTTGAGAACAAATGACATCATCATT
 TTAACCTCACAGATTCTGTGAACAACCTTAAAAAGGGAACGATTCCATCACTATCCATC
 TTTACTTTGATGATTTTGTGAATGCCACAACACTAGTAAACAACACCCGTACAATATG
 ATCATGTTTAAATATCTAGATCAGAAACTTGGAGGATCTTCAGGCCCACTGCCCCAGGTC
 ATTGGGCTGACTGCCTCGGTTGGTGTGGGGATGCCAAAAACACAGATGAAGCCTTGGAT
 TATATCTGCAAGCTGTGTCTTCTTTGATGCGTCAGTGATAGCAACAGTCAAACACAAT
 CTGGAGGAACTGGAGCAAGTTGTTTATAAGCCCCAGAAGTTTTTCAGGAAAGTGGAAATCA



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CGGATTAGCGACAAATTTAAATACATCATAGCTCAGCTGATGAGGGACACAGAGAGTCTG
 GCAAAGAGAATCTGCAAAGACCTCGAAAACCTTATCTCAAATTCAAAATAGGGAATTTGGA
 ACACAGAAATATGAACAATGGATTGTTACAGTTTCAGAAAGCATGCATGGTGTCCAGATG
 CCAGACAAAGATGAAGAGAGCAGGATTTGTAAAGCCCTGTTTTATACACTTCACATTTG
 CGGAAATATAATGATGCCCTCATTATCAGTGAGCATGCACGAATGAAAGATGCTCTGGAT
 TACTTGAAGACTTCTTCAGCAATGTCCGAGCAGCAGGATTCGATGAGATTGAGCAAGAT
 CTTACTCAGAGATTTGAAGAAAAGCTGCAGGAAGTGAAGAGTGTTCAGGGATCCCAGC
 AATGAGAATCCTAAACTTGAAGACCTCTGCTTCATCTTACAAGAAGAGTACCACTTAAAC
 CCAGAGACAATAACAATCTCTTTGTGAAAACAGAGCACTTGTGGACGCTTTAAAAAAT
 TGGATTGAAGGAAATCCTAAACTCAGTTTTCTAAAACCTGGCATATTGACTGGACGTGGC
 AAAACAAATCAGAACACAGGAATGACCCTCCCGGCACAGAAGTGTATATTGGATGCATTC
 AAAGCCAGTGGAGATCACAATATTCTGATTGCCACCTCAGTTGCTGATGAAGGCATTGAC
 ATTGACACAGTGAATCTTGTATCCTTTATGAGTATGTGGCAATGTCATCAAAATGATC
 CAAACCAGAGGCAGAGGAAGAGCAAGAGGTAGCAAGTGCCTTCTGACTAGTAATGCT
 GGTGTAATTGAAAAAGAACAATAAACATGTACAAGAAAAAATGATGAATGACTCTATT
 TTACGCCCTTCAGACATGGGACGAAGCAGTATTTAGGGAAAAGATTCTGCACATACAGACT
 CATGAAAAATTCATCAGAGATAGTCAAGAAAAACCAAAACCTGTACCTGATAAGGAAAAT
 AAAAAACTGCTCTGCAGAAAGTGCAAAAGCCTTGGCATGTTACACAGCTGACGTAAGAGTG
 ATAGAGGAATGCCATTACACTGTGCTTGGAGATGCTTTTAAAGGAATGCTTTGTGAGTAGA
 CCACATCCCAAGCCAAAGCAGTTTTCAAGTTTTGAAAAAGAGCAAGATATTCTGTGCC
 CGACAGAACTGCAGCCATGACTGGGGAATCCATGTGAAGTACAAGACATTTGAGATTCCA
 GTTATAAAAAATGAAAGTTTTGTGGTGGAGGATATTGCAACTGGAGTTTCCAGACACTGTAC
 TCGAAGTGAAGGACTTTCAATTTGAGAAGATACCAATTTGATCCAGCAGAAATGTCCAAA
 TGATATCAGTCTCAATCTTCAGCTACAGGGAATGAGTAACTTTGAGTGGAGAAGAAAC
 AAACATAGTGGGATAATCATGGATCGCTTGTACCCCTGTGAAAAATATTTTTTAAAAA
 TAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_014314 unedited
 ACGACTACTATAGGGCGCCGCAATTCGGCACGAGGNAAGTTCCTATGCAGCTCCGC
 CTCGCGTCCGGCCTCATTTCCTCGGAAAATCCCTGCTTTCCCGCTCGCCACGCCCTCCT
 CCTACCCGGCTTTAAAGCTAGTGAGGCACAGCCTGCGGGGAACGTAGCTAGCTGCAAGCA
 GAGGCCGGCATGACCACCGAGCAGCGACGACGCTGCAAGCCTTCCAGGATTATATCCGG
 AAGACCCTGGACCCTACCTACATCCTGAGCTACATGGCCCTGGTTTAGGGAGGAAGAG
 GTGCAGTATATTCAGGCTGAGAAAAACAACAAGGCCCAATGGAGGCTGCCACACTTTTT
 CTCAAGTTCCTGTTGGAGCTCCAGGAGGAAGGCTGTTCCGTGGCTTTTTGGATGCCCTA
 GACCATGCAGGTTATTCTGGACTTTATGAAGCCATTGAAAGTTGGGATTTCAAAAAAT
 GAAAAGTTGGAGGAGTATAGATTACTTTTAAAACGTTTACAACCAGAATTTAAAACAGA
 ATTATCCCAACCGATATCATTCTGATCTGTCTGAATGTTAATTAATCAGGAATGTGAA
 GAAATTCTACAGATTTGCTCTACTAAGGGGATGATGGCAGGTGCAGAGAAATGGTGGAA
 TGCCCTTCTCAGATCAGACAAGGAANACTGGCCAAAACCTTTGAAACTTGCTTTGGAGAAA
 GAAGGAAACAGTTCAGTGAAGTGTGGATTGTAGAGAAAGTATCAAAGATGTTGAAACAGA
 AGATCTTGCAGACTAGATGGGAACCTTCTGACATACAGATTTTCTACCAAGAAGATTCCAG
 AATGCCGAATCCTTAGTGAGCATTATGTTTACCCTTCAGAAAGTGTCTGATCCAACTGC
 ACAGCCCATTTNAACCAGAAATACATTTACAGCCTGCCTTGTCTGCTATGAAGGNAACACAC
 ATATATGGCTCCTACGGGNTGGGAAAAACCTTGTTCACTGTTACTCGGACTCATCTAAA
 ATCCAAGG

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_014314 unedited ACTATGAACCCGCGCCGCAATCTAGNGATCAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTATTTTTAAAAAATTTTTACAGGGGTACAAGCGATCCATGATTATACC CACTATGTTTGTTTCTTCTCCACTCAAAGTTACTATTCCCTGTAGCTGAAGATTGAGGA CCTGATATCATTGGACATTTCTGCTGGATCAAATGGTATCTTCTCAAAATGAAAGTCCT TCCACTTCGAGTACAGTGTCTGAACTCCAGTTGCAATATCCTCCACCACAAAACCTTCAA TTTTTATAACTGGAATCTCAAATGTCTTGTACTTCAATGGATTCCCCAGTCATGGCTGC AGTTCTGTCGGGCACAGAATATCTTGGCTTTTTTCAAAACTTGAAAAGTCTTTGGCT TGGGATGTGGTCTACTCACAAGCATTCTTAAAAGCATCTCCAAGCACAGTGAATGGC ATTCTCTATCACTCTTACGTCAGCTGTGAACATGCCAAGGCTTTGCACTTTCTGCAGA GCAGTTTTTTATTTTCTTATCAGGTACAGTTTTGGTTTTTCTTACTATCTCTGATGA ATTTTTCATGAGTCTGTATGTGCAGAATTTTTCCCTAAATACTGCTTCGTCATGTCT GAAGGCGTAAAATAGAGTCATTCATCATTTTTTCTTGNACATGTTTATTGTCTTTTT CAATTACACCAGCATTACTAGTCAGAAGGAAGCACTTGCTACCTCTTGCTCTTCTCTG CTCTGGTTTGGATTCAATTTGATGACATTGCCACATACTCATAAAGGATGACAAGATTGC ACTGTGCAATGTCAATGCCTTCATCAGCAACTGGAGGTGGCATCAGAATATTTGGATCTC CACTGGGCTTGAATGCATCCATATACCTTCTGTGCCCGGAGGGNCNTNCTGGGTTCTGA ATTGTTTTGCCCGTCCAGTCAATATGCG
Restriction Sites:	NotI-NotI
ACCN:	NM_014314
Insert Size:	3000 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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_014314.2 , NP_055129.2

RefSeq Size: 4372 bp
RefSeq ORF: 2778 bp
Locus ID: 23586
UniProt ID: [O95786](#)
Cytogenetics: 9p21.1
Domains: DEAD, helicase_C

Protein Pathways: Cytosolic DNA-sensing pathway, RIG-I-like receptor signaling pathway

Gene Summary: DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases which are implicated in a number of cellular processes involving RNA binding and alteration of RNA secondary structure. This gene encodes a protein containing RNA helicase-DEAD box protein motifs and a caspase recruitment domain (CARD). It is involved in viral double-stranded (ds) RNA recognition and the regulation of the antiviral innate immune response. Mutations in this gene are associated with Singleton-Merten syndrome 2. [provided by RefSeq, Aug 2020]