

Product datasheet for MC224398

Wrn (NM_011721) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Wrn (NM_011721) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Wrn
Synonyms:	A1846146
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224398 representing NM_011721 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAACCCTTCACTACAGCGGAAATTTCCAGAATGGATGTCTATGCAGAGTCAAAGATGTGCTACAG
AAGAAAAGGCCTGCGTTCAGAAGAGTGTCTTGAAGATAACCTCCCATTCTTAGAATTCCTGGATCCAT
TGTTTACAGTTATGAAGCTAGTATTGCTCCTTCTGTCTGAAGACATTAGCATGCGTCTGTCTGATGGC
GATGTGGTGGGATTTGACATGGAATGGCCGCCATATACAAGCCAGGGAAAAGAAGCAGAGTCGCAGTGA
TCCAGTTGTGTGTCTGAGAGCAAATGTTACTTGTTCACATTTCTCCATGTCAGTTTTCCCCAGGG
ATTAATAATGTTACTAGAAAACAAATCAATTAAGAAGGCAGGGGTTGGGATTGAAGGGGACCAGTGGAAA
CTTCTGCGTGATTTTACGTCAGTTGGAGAGTTTTGTGGAGCTGACGGATGTTGCCAATGAAAAGTTGA
AGTGCGCAGAGACCTGGAGCCTCAATGGTCTGGTTAAACACGCTTAGGGAAAACAACTTTTGAAGACAA
GTCCATCCGCTGCAGCAATTTGGAGTAATTTCCCTCACTGAGGACCAGAACTGTATGCAGCCACTGAT
GCTTATGCTGGTCTTATCATCTATCAAAAATTAGGAAATTTGGGTGATACTGCGCAAGTGTTCCTCTAA
ATAAAGCAGAGGAAAACCTACCTCTGGAGATGAAGAAACAGTTGAATTCATCTCCGAAGAAATGAGGGA
CCTAGCCAATCGTTTTCTGCACTTGCAGAAAATTTGAAAACCTCCAGAGGGTTCTGTAATATTGAAG
AGTATTTTCAGAAAATCTCTGTTCAATGAGAAAAGTGATCTGTGGTCTACAAACACTGAGACTAGACTGA
AGCCGGGCAGTAGTTTTAATTTACTGTCATCAGAGGATTCAGCTGCTGCTGGAGAAAAAGAGAAACAGAT
TGGAAAACATAGTACTTTTGTAAAATTAAGAAGAACCATGGGACCCAGAACTTGACAGTTTAGTGAAG
CAAGAGGAGGTTGATGTATTTAGAAATCAAGTGAAGCAAGAAAAAGGTGAATCTGAAAATGAAATAGAAG
ACAATCTGTTGAGAGAAGATATGAAAAGAACTTGTGTATTCTAGTATTTTCAGAAAATGAACTCCAAGA
TTTGAACAGCAAGCTAAAGAAGAAAAATAATGATGTTTCTCACCACCTTTCTGAGCATTATCTCCC
AATGATGATGAGAATGACTCCTCTATATAATTGAAAAGTGAAGATTTGGAAATGGAGATGCTGAAGT
CTTTAGAAAACCTAAATAGTGACGTGGTGAACCCACTACTCTACATGGTTGGAAATGGGAACCAATGG
GCGTCTTCTCCTGAGGAGGAAGATGGACACGGAATGAAGCCATCAAAGAGGAGCAGGAAGAAGAGGAC
CATTTATTGCCGAACCAACGCAAAGCAAATTAATTGCCTCAAGACCTATTTCCGGACACAGCAGTTTAA



AACCGTTTCAGTGAAAAGTCATCCATTCTGTATTAGAAGAGAGAAGAGATAATGTTGTTGTCATGGCAAC
 TGGATATGGGAAGAGTCTGTGCTTCCAGTATCCGCCTGTTTATACAGGCAAGATTGGCATTGTCATTTCA
 CCTCTCATTTCTTAATGGAAGACCAAGTCCAGCTTGAGCTGTCCAATGTTCCAGCCTGTTTACTTG
 GATCTGCACAGTCAAAAAATATTCTAGGAGATGTTAAATTAGGCAAAATAGGGTCATCTACATAACTCC
 AGAGTTCTGTTCTGGTAACTTGGATCTACTCCAGCAACTTGACTCTAGTATTGGCATCACTCTATTGCT
 GTGGATGAGGCTCACTGCATTTCCAGATGGGCCATGATTTGAGAAGTTCATTGAGGATGCTGGGCTCTC
 TTAANAACAGCGCTCCCATTTGGTCCAGTATTGCCTCCGCTACTGCAAGCTTCCATCCGGGAAGA
 CATTATAAGCTGCTTAAACCTGAAAGACCTCAGATCACCTGCACTGGATTTGATCGGCCAAATCTGTAC
 TTAGAAGTTGGACGGAACAGGGAACATCCTTCAAGTCTAAAGCCGTTTCTCGTCCGAAAGGCAAGTT
 CTGCCTGGGAATTTGAAGGTCCAACCATCATCTATTGCTTTCGAGAAAAATGACAGAACAAGTTACTGC
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 GTTCATCATAGGTTCTGAGAGATGAAATTCAGTGTGTTGTAGCTACTGTAGCTTTTGAATGGGCATTA
 AATAAGCTGACATTCGAAAGTTATTATTATGGTGCCTAAGGAAATGGAATCCTATTACCAGGAAAT
 TGGTAGAGCTGGCCGGGATGGACTTCAGAGTTCCTGCTACTTGTCTGGGCTCCAGCAGACTTTAACACA
 TCCAGGAATCTCCTTATTGAGATTCACGATGAAAAGTTCCGGTTATATAAATTAAGATGATGGTAAAGA
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 GCAGAAGGCCCTCCTTGGACATTATGGGAACTGAAAAATGCTGTGATAATTGCAGGCCAGGCTGAATCAT
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 GCGTCTTCTGATAAATATCGGGTTCACAGGCTCTTTGGTGTGGAAGGAGCAAGCAGAAAAGTTGGTGG
 AAGACCTTTCTACCATCTCATAGCTGAAGGATCTTGGTGAAGTTCCCAAGGAAAACAATATATAA
 AGACATGTTCCCTCACAAAAAGGGTAGAAAGTGGCTTGGAGAAGCCAGTTCGCAGTCTCCTCCGAGCCT
 TCTCCTTCAAGCTAATGAAGAGATGTTTCCAAGGAAAGTTCTGCTACCAAGTTCTAATCCTGTATCTCCA
 GAAACGACGCAACATTCCTCTAATCAAAACCCAGCTGGATTAACCTACCAAGCAGTCTAATTTGGAGAGAA
 CGCATTCTTACAAGTGCCTGAGAAAGTTTCTTCTGGGACTAACATTCTAAAAAAGTGCCGTGATGCC
 GTCACCAGGAACATCTTCCAGCCCTTAGAACCTGCCATCTCAGCCCAAGAGCTGGACGCTCGGACTGGG
 CTATATGCCAGGCTGGTGAAGCAAGGCAGAAACAGCTAATAAGATGGATGTACCTCCAGCTATTTTAG
 CAACAAACAAGGTTCTGCTGGACATGGCTAAAATGAGACCGACTACTGTTGAAAACATGAAAACAGATCGA
 CGGTGTCTCTGAAGGCAAAGCTGCTCTGTTGGCCCTCTGTTGGAAGTCATCAAACATTTCTGTCAAGTA
 ACTAGTGTTCAGACAGACCTCCTTCCAGTGCCAAACCTCACAAAGAACAGGAGAAAAGTCAAGGAGATGG
 AAAAGAAAGACTGCTCACTCCCCAGTCTGTGGCCGTACATACACTCTATTCCAGGAAAAGAAAATGCC
 CTTACACAGCATAGCTGAGAACAGGCTCCTGCCTCTCACAGCAGCCGGCATGCACTTAGCCAGGCGGTG
 AAAGCCGGCTACCCCTGGATATGGAGCGAGCTGGCCTGACCCCAAGAGACTTGAAGATTATTATGGATG
 TCATCCGAAACCTCCCATCAACTCAGATATGTATAAAGTTAAACTCATCAGAATGTTAGTTCCTGAAAA
 CTTAGACACGTACCTCATCCACATGGCGATTGAGATTCTTCCAGAGTGGTCCGACAGCAGAACCCAGCCT
 CCTTGTGATTCCAGCAGGAAGAGGCGTTTCCCAAGCTCTGCAGAGAGTGTGAGAGCTGTAAAGGAGAGCA
 AAGAGGCGGTACCGAGACCAAGGCATCATCTTCCAGAGTCAAAGAGAAAATACCCGAGTGGTTTGCCAA
 AGGAAATGTGCCCTCAGCTGATACCGGCAGCTCATCATCAATGGCCAAGACCAAAAAGAAAGTCTCTTT
 AGTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: NM_011721
 Insert Size: 4206 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](#)

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_011721.4](#), [NP_035851.3](#)

RefSeq Size: 6383 bp

RefSeq ORF: 4206 bp

Locus ID: 22427

UniProt ID: [O09053](#)

Cytogenetics: 8 20.3 cM

Gene Summary: Multifunctional enzyme that has both magnesium and ATP-dependent DNA-helicase activity and 3'->5' exonuclease activity towards double-stranded DNA with a 5'-overhang. Has no nuclease activity towards single-stranded DNA or blunt-ended double-stranded DNA. Binds preferentially to DNA substrates containing alternate secondary structures, such as replication forks and Holliday junctions. May play an important role in the dissociation of joint DNA molecules that can arise as products of homologous recombination, at stalled replication forks or during DNA repair. Alleviates stalling of DNA polymerases at the site of DNA lesions. Important for genomic integrity. Plays a role in the formation of DNA replication focal centers; stably associates with foci elements generating binding sites for RP-A (By similarity). Plays a role in double-strand break repair after gamma-irradiation (By similarity). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 both encode the same protein.