

Product datasheet for **MR215893**

Rad21 (NM_009009) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rad21 (NM_009009) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rad21
Synonyms:	mKIAA0078; SCC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR215893 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTTCTACGCACATTTTGTCTCAGTAAACGAGGGCCTCTGGCCAAAATCTGGCTGGCGGCCATTGGG
ACAAGAAGCTAACCAAAGCCCATGTATTTGAGTGCACCTTAGAGAGCAGTGTGGAGAGCATCATCTCACC
AAAGGTGAAGATGGCGCTGCGGACGTCAGGACACCTTCTCCTGGGAGTAGTCCGCATCTATCACAGGAAA
GCCAAATACCTCCTCGCAGACTGTAATGAAGCATTATTAATAAAGATGGCGTTTCGGCCAGGTGTTG
TCGATCTACCTGAGGAAAATCGGGAAGCAGCTTAATGCCATTACTTTACCTGAGGAATCCACGATTT
TGATCAGCCACTGCCAGATTTAGATGATTTGACGTGCCCCAGCAGTTCAGCCTGAACCAAAGCAGAGTA
GAAGAGATAACCATGAGAGAAGAAGTCGGAACATCAGTATCCTACAGGAAAATGACTTTGGTGACTTCG
GAATGGATGACCGTGAATAATGAGAGAAGGCAGTGCTTTGAGGATGACGACATGTTAGTGAGCACCAG
CGTTCCAACCTTCTCCTCGAGCCAGAGCAGAGCACCAGCAACCTGAATGAAAAGATGAATCACTTAGAG
TAGGAAGACCAGTACAAAAGATGACAATTTGGAGAAGGAAATGATGGCGGTATATTAGATGACAAAATTA
TAAGTAATAATGATGGTGGCATTTTGACGATCCCCCTGCCTTGCTGAGGCAGGGGTATGTTGCCAGA
GCAACCTGCACATGATGACATGGATGAAGATGACAATGGCTCACTGGGTGGGCCGGATAGTCCCAGCTCT
GTGGATCCTGTGCAACCGATGCCAACTATGACTGATCAGACAACCTCTCGTCCCAAACGAGGAAGAAGCTT
TTGCGTTGGAGCCATTGATATAACTGTCAAAGAGACAAAAGCCAAGAGGAAGAGGAAGCTGATTGTTGA
CAGTGTCAAAGAATTGGATAGTAAGACCATTAGAGCCCAGCTTAGCGATTATTCTGATATTGTTACGACT
CTGGACCTGGCTCCGCCAACCAAGAAGCTTATGATGTGGAAGAGACAGGAGGAGTGGAAGGCTCTTCT
TTTTACCAGCACAGCCCCTGTGGAATAACCGGCTACTGAAGCTTTCACACGCTGCCTTACCCCACTTGT
ACCAGAAGACCTTAGGAAGAGAAGGAAAGGGGAGAGGCAGATAATCTGGATGAGTTCCTCAAAGAGTTT
GAGAATCCAGAGTTCCAGAGAGGAGCAGCAGCCACAGCAGCAGCCACAGCCGAGGAGATGTCA
TCGATGAGCCATTATAGAAGAGCCAAGCCGCTCCAGGACTCAGTGATGGAGGCCAGCAGAACAACCAT
AGAAGAATCAGCCATGCCCCACCACCCCTCAAGGAGTTAAGCGGAAAGCCGGGCAAAATAGACCCAGAG
CCTTCGATACCTCCTCAGCAGGTAGAGCAAATGGAATACCACCAGTAGAACTTCCCCAGAGGAGCCTC
CAAATATCTGTCAGCTGATCCCGGAGTTAGAGCTCCTACCGGAGAAGGAGAAGGAAAAAGAGAAGGAGAA
GGAAGAGGAGGAGGAGGAGGATGAAGATGCTTCAGGGGTGATCAGGATCAAGAGGAAAGGAGATGG
AACAAACGCACTCAGCAGATGCTTCATGGTCTTCAGCGAGCTTCTGCTAAAACCTGGAGCAGAGTCTATCA
GTTTGCTTGAGCTGTGTCGAAACACAAACCGAAAGCAGGCAGCAGCAAAGTTCTACAGCTTTTTGGTTCT
TAAGAAGCAGCAAGCCATCGAGCTCACACAGGAAGAGCCGTACAGTGACATCATTGCAACCCCTGGACCA
CGTTCCATATTATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR215893 protein sequence
 Red=Cloning site Green=Tags(s)

MFYAHFVLSKRGPLAKIWLAAHWKDKLTKAHVFECNLESSVESIISPKVKMALRTSGHLLLGVVRIYHRK
 AKYLLADCNEAFIKIKMAFRPGVVLDPEENREAAYNAILPEEFHDFDQPLPDLDDIDVAQQFSLNQSRV
 EEITMREEVGNISILQENDFGDFGMDREIMREGSAFEDDDMLVSTSASNLLLEPEQSTSNLNEKMNHLE
 YEDQYKDDNFGEKNDGGILDDKLI SNNDGGIFDDPPALSEAGVMLPEQPAHDDMDEDDNGSLGGPSPDS
 VDPVPEPMTMDQTTLVPNEEEAFALEPIDITVKETKAKRKRKLI VDSVKELDSKTIRAQLSDYSDIVTT
 LDLAPPTKCLMMWKETGGVEKLFPLPAQPLWNNRLLKLFTRCLTPLVPEDLRKRRKGGEADNLDFLKEF
 ENPEVPREEQQPQQQPQRDVIDEPIIEEPSRLQDSVMEASRTTIEESAMPPPPPQGVKRKAGQIDPE
 PSIPPQQVEQMEIPPVELPPEPPNICQLIPELELLPEKEKEKEKEKEKEKEKEKEKEDEEDASGGDQDQEERRW
 NKRTQQMLHGLQRALAKTGAESISLLELCRNTNRKQAAAKFYSLVLLKKQQAIELTQEEPYSIIATPGP
 RFHII

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_009009

ORF Size: 1908 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_009009.4](#), [NP_033035.3](#)

RefSeq Size: 3632 bp

RefSeq ORF: 1908 bp

Locus ID: 19357

UniProt ID: [Q61550](#)

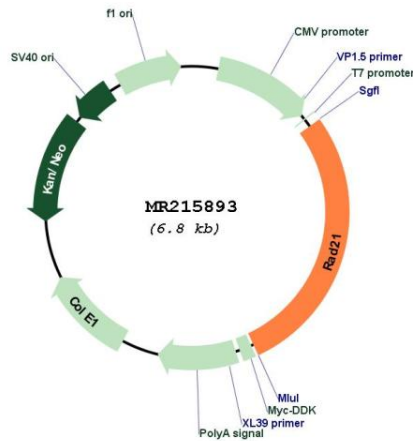
Cytogenetics: 15 C

MW: 72.1 kDa

Gene Summary:

Double-strand-break repair protein rad21 homolog: As a member of the cohesin complex, involved in sister chromatid cohesion from the time of DNA replication in S phase to their segregation in mitosis, a function that is essential for proper chromosome segregation, post-replicative DNA repair, and the prevention of inappropriate recombination between repetitive regions. The cohesin complex may also play a role in spindle pole assembly during mitosis (By similarity). In interphase, cohesins may function in the control of gene expression by binding to numerous sites within the genome (PubMed:18237772). May control RUNX1 gene expression. Binds to and represses APOB gene promoter (By similarity). May play a role in embryonic gut development, possibly through the regulation of enteric neuron development (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR215893