

Product datasheet for **RR214401**

Recql5 (NM_001105853) Rat Tagged ORF Clone

Product data:

| | |
|--------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Recql5 (NM_001105853) Rat Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Recql5 |
| Synonyms: | RecQ5 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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ORF Nucleotide Sequence:

>RR214401 representing NM_001105853
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCGCCCGTCTTTCTCCACTCCCTTCGACCGGGAGCGGCGAGTCCGGAGCACCTGAAGAAAGTCT
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 TGTGTTTGTGTGCATGCCACAGGGGCAGGAAATCTCTGTGCTATCAGCTCCCTGCCGTCTGGCTAAA
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 AGGTACAAGTTAGTTCTCTGAACCTCAAAGCTCTCAGTACAGGAGAGGAAGGAGCTGTCTGACCTGGA
 GCGAGACAAACCTCGACCAAACCTCTGTACATCACCCCGGAGATGGCAGCTTCAGCCTCCTCCAGCCC
 ACCCTGAATCCCTCCTGTCCCGAAACCTGCTCTCCTACTTGGTGGTGGATGAAGCTCATTGCGTTTCCC
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 AGCAGCAGGGGTGTAATGCCAAGGCTTACCATGCAGGCTGAAGGCTTCTGAGAGAACGAGGTACAGA
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 GCTGGCAGGGATGGTAACCATCTTGGTCCCGCTCTATTACTTAGGAATGACCAGACCAAGTCAAGT
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 GCCTGCGCAAGGGCAAAGAGGCCAAGCCAGAAGAATTACACCCCCAGGTGAAGACTGTCCCTGAGAGA
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 CAGGGCGAGAAGAGGCCACAGCCACAGCAGGAAAGCCAAGAGAAGAGGGCTCAGAAGAGGCTTCGCCCT
 CAACCAACTTCCGCTTGGCCAGTGACCCAGCAGGAGAACAGAGTGGCTCGCGAACCTTGCCAGCT
 CTCAGCTCCTGGCATCTCCTGAAAGAGGCTGCAGACATTGTGGTCAAGTACCTGACCCCTTCTACAAG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR214401 representing NM_001105853
 Red=Cloning site Green=Tags(s)

MSARPFSTPFDERRRVRSTLKKVFGFDSFKTPLQESAIMAVVKGDKDVFVCMPTGAGKSLCYQLPAVLAK
 GITIVVSPLIALIQDQVDHLLALKVQVSSLNSKLSVQERKELLSLERDKPRTKLLYITPEMAASASFQP
 TLNSLLSRNLLSYLVVDEAHCVSQWGHDFRPDYLRGALRSRLAHAPCVALTATATPQVQEDVFAALHLK
 QPVASFKTPCFRANLFYDVQFKELIPDVVGNLRDFCLKALGQKADNGSSSGCGIIVYCRTREACEQLAIEL
 SSRGVNAKAYHAGLKASERTQVQNEWMEEKVPVIVATISFGMGVDKANVRFVAHWNIKSMAGYYQESGR
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 FGDAPPACAKGDCQSPAAIRKKLDALEHSSSWGKTCIGPSQGDGDFPELYEGGRRGYGGFSRYDEGSG
 GSGDEGRDEAHKREWNLFYQRQMSLRKGEAKPEEFTPPGEDCPLRDASSRKIPKLTVKAREHCLRLLEE
 ALNSNHQAAGSTHGADLQAKAVELEHETFRSAKMVNLKASVLLKVAEIHKASKDGQLYDMESSTKSCGA
 IAELLEPSDYDIPPTSHLYSLPKRVGAGFSKGPFPQTATELLGKSQTEKLAPEAALESEQEPGWWCD
 PQDGRSRKPLGYQEEAPGSRNCGDPSPEKRTKGSSQGSARAKSRQQLLATAARKDSQSITRFLRQR
 TECPPPAASVPSEEDASPCGDVPGKCTEEVGAQGHVAVFQTECPRERLSTCSLEDQSLPKGQPSPLKET
 QAEKRPRPQESQEKRAQKRLRPSTNSSALASDPSTENRVAREPCQLSAPGISLKEAADIVVRYLTPFYK
 EGRFISKDLFKGFARHLSHLLAQKLSGGRSVKKEEAQSLIKQFFHNRARCESEADWHGLCGPQR

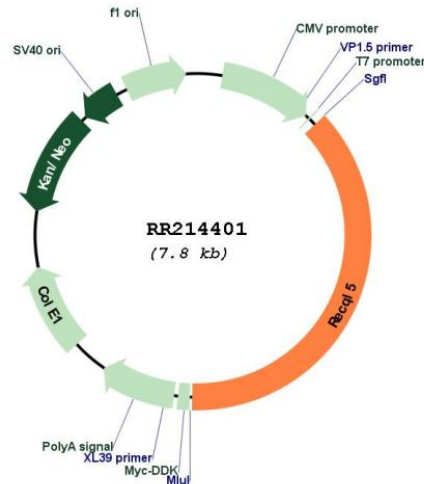
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001105853

ORF Size: 2919 bp

OTI Disclaimer: 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_001105853.1](#), [NP_001099323.1](#)

RefSeq Size: 3905 bp

RefSeq ORF: 2922 bp

Locus ID: 287834

UniProt ID: [D4ACP5](#)

Cytogenetics: 10q32.1

MW: 107.2 kDa

Gene Summary: DNA helicase that plays an important role in DNA replication, transcription and repair. Inhibits elongation of stalled transcripts at DNA damage sites by binding to the RNA polymerase II subunit POLR2A and blocking the TCEA1 binding site. Required for mitotic chromosome separation after cross-over events and cell cycle progress. Required for efficient DNA repair, including repair of inter-strand cross-links. Stimulates DNA decatenation mediated by TOP2A. Prevents sister chromatid exchange and homologous recombination (By similarity).[UniProtKB/Swiss-Prot Function]