

Product datasheet for RC216503

RAG1 (NM_000448) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAG1 (NM_000448) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAG1
Synonyms:	RAG-1; RNF74
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216503 representing NM_000448 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCCTCTTTCCACCCACCTTGGGACTCAGTTCTGCCCCAGATGAAATTCAGCACCCACATATTA
AATTTTCAGAATGGAAATTAAGCTGTTCCGGGTGAGATCCTTTGAAAAGACACCTGAAGAAGCTCAAAA
GGAAAAGAAGGATTCCTTTGAGGGGAAACCTCTCTGGAGCAATCTCCAGCAGTCTGGACAAGGCTGAT
GGTCAGAAGCCAGTCCCAACTCAGCCATTGTTAAAAGCCACCCTAAGTTTTCAAAGAAATTCACGACA
ACGAGAAAAGCAAGAGGCAAAGCGATCCATCAAGCCAACCTTCGACATCTCTGCCGATCTGTGGGAATTC
TTTTAGAGCTGATGAGCACAACAGGAGATCCAGTCCATGGTCCTGTGGATGGTAAAACCTAGGCCTT
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AGGCAGATGTTGACTCGATCCACCCACTGAGTTCTGCCATAACTGCTGGAGCATCATGCACAGGAAGTT
TAGCAGTGCCCATGTGAGGTTTACTTCCCAGGAACGTGACCATGGAGTGGCACCCCCACACACCATCC
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AAAAACTCAAACTGTGCTTGACCAAGCAAGACAAGCCCGTCAGCGCAAGAGAAGAGCTCAGGCAAGGAT
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ACCACATCTCAAGTCACAAGGAATCAAAAGAGATTTTTGTGCACATTAATAAAGGGGGCCGCCCCGCCA
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AGCTGTTTGTGGCCATCCGTGTCAACACCTTCTCAGCTGCAGTCAAGTACCACAAGATGTACAGGACT



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GTGAAAGCCATCACAGGGAGACAGATTTTTTCAGCCTTTCATGCCCTTCGGAATGCTGAGAAGGACTTC
 TGCCAGGCTACCACCCTTTGAGTGGCAGCCACCTCTGAAGAATGTGTCTCCAGCACTGATGTTGGCAT
 TATTGATGGGCTGTCTGGACTATCATCTCTGTGGATGATTACCCAGTGGACACCATTGCAAAGAGGTTCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216503 representing NM_000448
 Red=Cloning site Green=Tags(s)

MAASFPTLGLSSAPDEIQHPHIKFSEWFKLFRVRSFEKTPPEAQKEKKDSFEGKPSLEQSPAVLKDAD
 GQKPVPTQPLLKAHPKFSKFKHDNEKARGKAIHQANLRHLCRICGNSFRADEHNRRYPVHGPDGKTLGL
 LRKKEKRATSWPDLIAKVFRIKADVDSIHPTTEFCHNCWSIMHRKFSAPCEVYFPRNVTMEWHPHTPS
 CDICNTARRGLKRKSLQPNLQLSKLKTVLQARQARQRKRAQARISSKDVMMKIANCSKIHLSTKLLA
 VDFPEHFVKSISQCICEHILADPVETNCKHVFCRVCILRCLKVMGSYCPSCRYPCFPTDLESPVKSFLSV
 LNSLMVKCPAKECNEEVSLEKYNHHISSHKESEIFVHINKGGRPRQHLLSLTRRAQKHRLRELKLQVKA
 FADKEEGDVKSVCMTLFLALLARNEHRQADELEAIMQKGSGLQPAVCLAIRVNTFLSCSQYHKMYRT
 VKAITGRQIFQPLHALRNAEKVLLPGYHHFEWQPPLKNVSSSTDVGIIDGLSGLSSVDDYPVDTIKRF
 RYDSALVSALMDEEDILEGMRSQDLDDYLNPFVTVVKESECDGMGDVSEKHGSGPVVPEKAVRFSFTIM
 KITIAHSSQNVKVFEEAKPNSELCKPLCLMLADESDHETLTAIILSPLIAEREAMKSSLELMLGILRT
 FKFIFRGTGYDEKLVREVEGLEASGSVYICTLCDATRLEASQNLVFHSITRSHAENLERYEVWRSNPYHE
 SVEELRDRVKGVSAPKPFIEVPSIDALHCDIGNAAEFYKIFQLEIGEVYKNPNASKEERKRWQATLDKHL
 RKKMNLKPIMRMNGNFARKLMTKETVDAVCELIPSEERHEALRELMDLYLKMKPVWRSSCPAKECPESLC
 QYSFNSQRFAELLSTKFKYRYEGKITNYFHKTLAHVPEIIERDGSIGAWASEGNESGNLFRFRKMNAR
 QSKCYEMEDVLKHHWLYTSKYLQKFMNAHNALKTSGFTMNPQASLGDPLGIEDSLESQDSMEF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8016_g06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:


ACCN: NM_000448

ORF Size: 3129 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_000448.2](#), [NP_000439.1](#)

RefSeq Size: 6557 bp

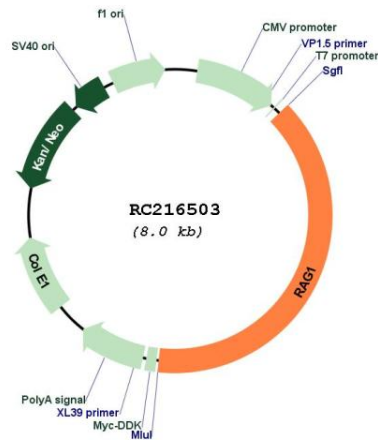
RefSeq ORF: 3132 bp

Locus ID: 5896

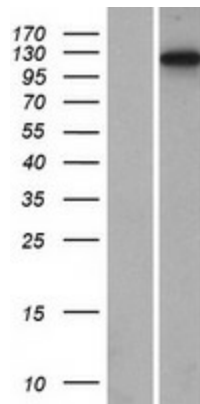
UniProt ID: [P15918](#)

Cytogenetics: 11p12
Protein Families: Druggable Genome
Protein Pathways: Primary immunodeficiency
MW: 118.9 kDa
Gene Summary: The protein encoded by this gene is involved in activation of immunoglobulin V-D-J recombination. The encoded protein is involved in recognition of the DNA substrate, but stable binding and cleavage activity also requires RAG2. Defects in this gene can be the cause of several diseases. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC216503



Western blot validation of overexpression lysate (Cat# [LY424712]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216503 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).