

Product datasheet for **RR214224**

Lrrc8c (NM_001037179) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lrrc8c (NM_001037179) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrrc8c
Synonyms:	RGD1306585
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RR214224 representing NM_001037179
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATTCCAGTGACCGAGTTCGGCAGTTCCTCCGAGCAGCAGCCTGCCTCCGGGTGCTGAAGCCGTGGT
 GGGATGTGTTACGGACTACCTCTCGGTGGCCATGCTGATGATCGGGGTGTTGGATGACTTTACAAGT
 CATGCAAGACAAGATCATCTGCCTCCAAAAAGAGTGCAGCCTGCTCAGAACCCTCTTCCCTCTCCAAC
 GTCTCCAGACTGTGATCAATACCACCCGCTGCCCCACCTAAACCCTCTCCGACCAACCCGGCGACCG
 TGGAGATGAAGGGACTGAAGACAGACCTGGACCTCCAGCAGTACAGTTTCATCAACCAGATGTGCTACGA
 GCGAGCCCTCCACTGGTATGCCAAGTACTTCCCGTACCTTGTGCTCATCCACACCCTGGTCTTCATGCTC
 TGCAGCAACTTCTGGTTCAAGTTCCTGGATCTAGTTCAAAATAGAACATTTTCATCTCCATCTGGGGA
 AGTGTTCGACTCCCGTGGACCTCGGGCTCTCTCCGAGGTGTCTGGCGAGGACTCCGAAGAGAAGGA
 CAATAGGAAGAACAACATGAACAGTCCAACACCATCCAGTCCGGTCCGGAAGGCAGCCTGGTCAAGTCC
 CAGTCTCTCAAGTCAATTCGAGAAAGTTCGTGGTTGACAAATCCACTGCGGGGGCTCTGGACAAGAAGG
 AAGGTGAACAGGCCAAGGCCCTTGTTCGAGAAGGTTAAGAAGTTCAGACTGCACGTGGAGGAAGGTGACAT
 CCTGTATGCCATGTATGTGCGGCAGACTGTGCTTAAGGTCAAGTTCCTGATCATCATCGCCTACAAC
 AGTGTCTGGTTTCCAAAGTCCAGTTCACCGTGGACTGCAATGTGGACATCCAGGACATGACGGGTATA
 AGAACTTTTCTGCAATCACACCATGGCTCATTGTTCTCCAACTCTCCTTTTGCTACCTGTGCTTTGT
 AAGCATCTACGGCCTGACGTGCCTTTATACCTTGTACTGGCTGTCTACCGTTCCTGAGGGAGTACTCT
 TTTGAGTATGTCGGCAGGAGACTGGAATCGATGACATTCCGGACGTGAAAAATGACTTTGCCTTATGC
 TCCATATGATAGACCAGTATGACCTCTCTATTCCAAGAGGTTTGGGTGTTCTCTGAGGTGACGCGA
 GAACAAGTTAAAGCAGCTCAACTTAAATAACGAGTGGACCCCGACAAGCTGCGGCAGAAGCTGCAGCAG
 AATGCCACAACCGCCTGGAGCTGCCTCTCATCATGCTGTCTGGCCTCCAGACACCGTGTTCGAGATCA
 CGGAGTTACAGTCCCTGAAGCTGGAGATCATTAAAGACGTGATGATACCCGCCACCATCGCCAGCTAGA
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 GAGAATCTCAAGGTCTTGAGCGTCAAGTTCGATGACATGAGGGAGCTGCCCCCTGGATGTACGGCCTCC
 GGAATCTGGAAGAGCTCTATCTGGTTGGCTCTCTGAGTACGACATCTCCAAAACGTACCCTGGAGTC
 CCTGCGGGACCTCAAAGCCTTAAAATCCTTTCCATCAAGAGCAACGTCTCCAAGATCCCTCAGGCCGTG
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 ACCTGAAGAAGATGACCAACCTGACCGAGCTGGAAGTGGTCCACTGCGACCTGGAACGCATTCGCCACGC
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 GTGAGTTTCCAGCACTTGAGAAAGCTAACCGTGTCAAAGTGTGGTATAACAGCATCGCTTACATCCAG
 AGCACATCAAGAACTGACCAGCCTGGAGCGACTGTTTTTCAGCCACAATAAGGTAGAAGTGCTTCCCTC
 CCACCTCTTCTGTGCAACAAAATCAGATACCTGGACCTGTCTATAACGACATTCGTTTCATCCCGCC
 GAAATCGGGTCTGCAAAAGTTTACAGTATTTCTCCATCACCTGTAAACAAAGTGGAGAGCCTCCCGGATG
 AACTCTACTTCTGCAAGAACTTAAAACATTGAAGATCGGGAAAAACAGCCTCTCTGTACTTTACACAAA
 AATTGGAACTTACTATTTCTTCTACTTAGACATCAAAGGCAATCACTTTGAAGTCTCCCTCCCGAG
 CTGGGAGACTGCCGGGCTCTGAAACGAGCCGGGCTGGTTGTGGAAGACGCTCTGTTTGGAGACTCTGCCCT
 CAGATGTCCGGGAGCAAATGAAAGCAGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR214224 representing NM_001037179
Red=Cloning site Green=Tags(s)

MIPVTEFRQFSEQQPAFRVLKPWWVFTDYL SVAMLIGVFGCTLQVMQDKIICLPKRVQPAQNHSSL SN
 VSQTVINTTPLPPPSPNTNPATVEMKGLKTDLDLQQYSFINQMCYERALHWHYAKYFPYL VLIHTLVFML
 CSNFWFKFPGSSSKIEHFISILGKCFDSPWTTTRALSEVSGEDSEEKDNRNKNMNRNNTIQSGPEGSLVKS
 QSLKSIPEKFVVDKSTAGALDKKEGEQAKALFEKVKKFRHLHVEEGDILYAMYVRQTVLKVIFLIIAYN
 SALVSKVQFTVDCNVDIQDMTGYNFSCNHTMAHLFSKLSFCYLCFVSIYGLTCLYTLYWLFYRSLREYS
 FEYVRQETGIDDIIPDVKNDFAFMLHMIDQYDPLYSKRFAVFLSEVSENKQNLNNEWTPDKLRQKLQT
 NAHNRLELPLIMLSGLPDTVFEITELQSLKLEIKNVMIPATIAQLDNLQELSLHQCSVKIHSAAALSFLK
 ENLKVLSVKFDDMRELPPWMYGLRNLEELYVGSLSHDIKSNVTLESLRDLKSLKILSIKSNVSKIPQAV
 VDVSSHLQKMCIHNDGTLVMLNNLKMTNLTELELVHCDLERIPHAVFSLLSLQELDLKENNLKSIIEI
 VSFQHLRKLTVLKLWYNSIAYIPEHIKLTSLERLFFSHNKVEVLPshlFLCNKIRYLDLSYNDIRFIPP
 EIGVLQSLQYFSITCNKVESLPDELYFCKKLTLKIGKNSLSVLSPKIGNLLFLSYLDIKGNHFVLPPE
 LGDCRALKRALVVEDALFETLPSDVREQMKAD

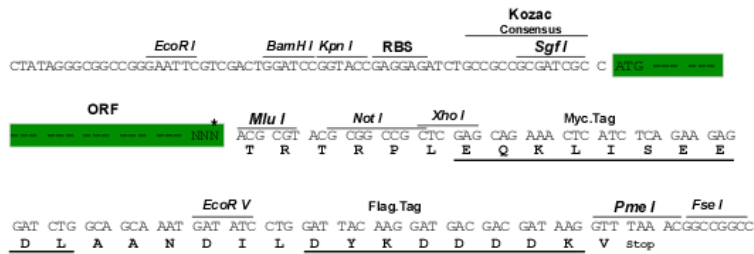
TRTRPLEQKLISEEDLANDILDYKDDDDKV

Restriction Sites:

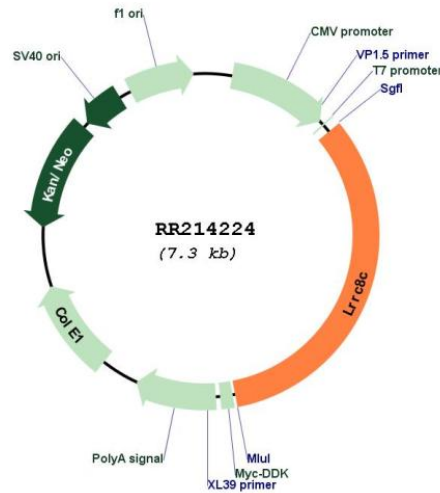
Sgfi-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001037179

ORF Size: 2409 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_001037179.1](#), [NP_001032256.1](#)

RefSeq Size: 2883 bp

RefSeq ORF: 2412 bp

Locus ID: 289443

UniProt ID: [Q498T9](#)

Cytogenetics: 14p22

MW: 92.5 kDa

Gene Summary: Non-essential component of the volume-regulated anion channel (VRAC, also named VSOAC channel), an anion channel required to maintain a constant cell volume in response to extracellular or intracellular osmotic changes (PubMed:28833202). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (By similarity). Plays a redundant role in the efflux of amino acids, such as aspartate and glutamate, in response to osmotic stress. Channel activity requires LRRC8A plus at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition (PubMed:28833202).[UniProtKB/Swiss-Prot Function]