

Product datasheet for **RR212831**

Lrrc8d (NM_001008338) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lrrc8d (NM_001008338) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrrc8d
Synonyms:	Lrrc5
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RR212831 representing NM_001008338
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAATGTTTACCCTTGCAGGTTGCTTCACTTAATGACATTCAGCCAACCTACCGAATCCTGAAGC
 CATGGTGGGACGTGTTTATGGATTACCTGGCGGTTGTTATGCTGATGGTAGCCATCTTTCAGGGACCAT
 GCAACTTACCAAAGATCAGGTGGTCTGTTTCCAGTGTGCGCTCGCAAAATCAAAGGCGCACACA
 CCACCCGGGAATGCTGACGTCACTACTGAAGTCCCAAGATGGAGACAGCCACACCCCAAGACAAAACG
 GGCAGACGACGAATGACATTGCCTTTGGCAGTCTGCTGTGACGCCTGACATACCTCTCAAGCCACCTA
 TTCACACGACAGTCCACCTTTCCAGTCAAGAGACGAAGAAGGAGAAGAGACCCACGGGCCGAAA
 ACCAATTGGATTTTTCAGCAGTACGATTTTATCAATCAGATGTGCTACCATCTGGCCCTTCTTGGTATT
 CCAAGTACTTTCCATACCTTGCCTTATACACACCATCATCCTTATGGTCAGTAGCAACTTTTGGTTCAA
 ATATCCAAAACGTGCTCCAAGTTGAGCATTGTTTCAATATTAGGAAAGTGTTCGAATCTCCCTGG
 ACTACTAAAGCGCTGTCCGAGACAGCCTGTGAGGACTCTGAGGAGAACAAGCAGCGGATAACGGGGCC
 AGACCCTACCGAAGCACGTGTCCACCAGCAGCGATGAGGGGAGCCCGAGCCAGCACCCCATGATCAA
 CAAAACGGGCTTCAAGTTCTCAGCTGAAAAGCCGGTGTGCAAGTTCCCAGCATGACGATCCTGGACAAG
 AAGGACGGGGAGCAGGCCAAAGCCCTGTTTGAAGGTGAGGAAATTCGTGCCATGTGGAAGACAGTG
 ACTTGATCTACAAGCTCTACGTGGTCCAGACCCTCATCAAGACCAGTTCATTTTTATCCTCTGCTA
 CACTGCAAACCTTGTCAACGCCATCAGCTTCGAGCATGTCTGCAAGCCAAAAGTCGAGCACCTCACGGGG
 TACGAGGTGTTGAGTGCACACATAATGGCCTACATGTTGAAGAACTGCTCATCAGCTACATCTCCA
 TCATCTGTGCTATGGTTCATCTGCCTACACTCTCTTCTGGTGTTCAGGATCCCTGAAAGGAATA
 TTCTTTGAGAAAAGTCCGAGAGGAAAGCAGCTTCAGCGACATCCCGGATGTCAAGAACGACTTCGGGTT
 CTCTGACATGGTTCAGCAGTACGACCAGCTCTATTCCAAGCGTTTTGGTGTCTTCTTATCTGAAGTCA
 GTGAAAACAACTGAGGGAAATCAGCCTGAACCATGAGTGGACTTTCGAGAACTCAGGCAGCACGTGTC
 TCGCAACGCCAGGACAAGCAGGAGCTGCACCTGTTTATGCTGTGAGGGTGCAGCGCTGCTTTGAC
 CTCACGGACCTGGATGTGCTAAAACCTGAACTGATTCCCGAAGCAAAAATTCCTGCCAAGATCTCTCAGA
 TGACGAACCTTCAAGAACTCCACCTCTGCCACTGCCCTGCCAAGGTGGAGCAGACCGCTTTAGCTTTCT
 TCGCGATCACTTGAGATGCCTTCATGTGAAGTTCAGTACGTGGCTGAAATCCCTGCCTGGGTGATTTG
 CTCAAAAACCTGCGGGAGCTGTACTTGATAGGCAACTTGAAGTCAAGAAACAATAAGATGATCGGGCTGG
 AGTCTCTGCGAGAGCTGCGGCACCTAAGATCCTCCACGTGAAGAGTAACCTGACCAAAGTCCCTCCAA
 CATAACTGACGTGGCTCCTCACCTCACCAAGCTCGTCATCCACAATGACGGCACCAAGCTTTGGTGCTC
 AACAGCCTGAAGAAGATGATGAACGTTGCCGAGCTAGAGCTGCAGAACTGTGAGCTGGAGAGGATCCAC
 ACGCCATTTTCAGCCTTTCTAACTTGCAGGAGCTGGACCTGAAGTCCAACAGCATCCGCACGATCGAGGA
 GATCATCAGTTTCCAACCTGAAGCGACTGACTTGCTTGAATTTGGGCAACAATAAAATTTGGGCCATT
 CCTCCCTCCATTACCCACGTCAAGAACCTGGAGTCCCTCTACTTCTCCAACAACAAGCTCGAGTCTTAC
 CGGTGGCAGTGTAGTTTACAGAACTCAGATGCTTAGATGTCAGCTATAACAACATTTCCACGATCCC
 CATAGAGATAGGTTTGTTCAGAACCTGCAGCATTGACATCACAGGGAACAAGTGGAGGTTCTGCCA
 AAACAGTTGTTTAAAGTGGTGAAGTTGAGGACTTGAACCTGGGGCAGAAGTGCATCGCCTCCCTGCCTG
 AGAAGATCAGTACGTGTCCAGCTCACTCAGCTGGAGCTGAAGGGCAACTGTCTCGACCGCTGCCAGC
 CCAGCTGGGCCAGTGTGGATGCTCAAGAAAAGCGGGCTTGTGTAGAAGACCAACTGTTTGACACGCTG
 CCACTGGAAGTCAAGAGGCATTGAATCAAGACGTAATGTCCCTTTGCGAACGGGATT

ACGGTACGGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR212831 representing NM_001008338
 Red=Cloning site Green=Tags(s)

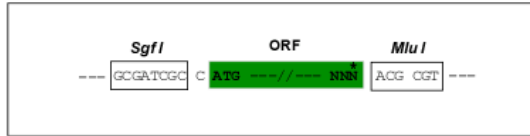
MGMFTLAEVASLNDIQPTYRILKPWWDVFM DYLA VVLMVAIFAGTMQLTKDQVVCLPVL PSPAN SKAHT
 PPGNADVTTEVPKMETATPQDQNGQTNDIAFGTSAVTPDIPLQATYSHAESTFSPSQETKKEKRDPTGRK
 TNLDFQQYVFINQMCYHLALPWYSKYFPYLALIHIIILMVSSNFWFKYPKTC SKVEHFVSILGKCFESPW
 TTKALSETACEDSEENKQRITGAQTLPKHVSTSSDEGSPSASTPMINKTGFKFSAEKPVIEVPSMTILDK
 KDGEQAKALFEKVRKFRAHVEDSDLIYKLYVVQTLIKTAKFIFILCYTANFVNAISFEHVCKPKVEHLTG
 YEVFECTHNMAYMLKLLISYISIIICVYGFICLYTLFWLFRIPLEKEYSFEKVREESSFSDIPDVKNDFAF
 LLHMVDQYDQLYSKRFVFLSEVSENKLEISLNHEWTFEKLQRHVSRNAQDKQELHLFMLS GVPDAVFD
 LTDLDVLKLEL IPEAKIPAKISQMTNLQELHLCHCPAKVEQTAFSFLRDHLRCLHVKFTDVAEIPAWVYL
 LKNLRELYLIGNLSENKMI GLESLRELRLHLKILHVKSNTKVPSNITDVAPHLTKLVIHNDGTKLLVL
 NSLKKMMNVAELELQNC ELERIPHAIFSLSNLQELDLKSNSIRTIEEIIISFQHLKRLTCLKLWHNKIVAI
 PPSITHVKNLES LYFSNNKLES LPVAVFSLQKL RCLDVS YNNISTIEPIEIGLLQNLQHLHITGNKVDVLP
 KQLFKCVKLR TLNLGQNCIASLPEKISQLS QLTQLELKGNC LDRLPAQLGQCRMLKKSGLVVEDQLFDTL
 PLEVKEALNQDVNVPFANGI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul

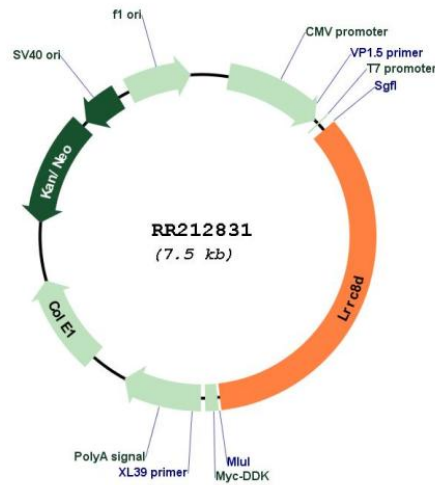
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001008338
ORF Size:	2580 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:	<ol style="list-style-type: none">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_001008338.1 , NP_001008339.2
RefSeq Size:	3213 bp
RefSeq ORF:	2583 bp
Locus ID:	305131
UniProt ID:	Q5U308
Cytogenetics:	14p22
MW:	98.1 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. Plays a redundant role in the efflux of amino acids, such as aspartate, in response to osmotic stress (By similarity). 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]