

## Product datasheet for **RR209103**

### **Lrrc8a (NM\_001024782) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Lrrc8a (NM_001024782) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrrc8a
Synonyms:	Lrrc8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RR209103 representing NM\_001024782  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATTCCGGTGACAGAGCTCCGCTACTTCGCGGACACGCAGCCAGCATACCGGATCCTGAAGCCGTGGT  
 GGGATGTGTTCACTGACTACATCTCCATTGTGTCATGCTGATGATTGCTGTCTTTGGGGGACACTGCAAGT  
 CACCCAGGACAAGATGATCTGCCTACCTTGTAAAGTGGGTACCAAAGACTCCTGCAACGACTCCTCCGG  
 GGCTGGGGGGCCTCCAGCCCAGAGCCACTTACCCCAACTCCACAGTCTGCCTACTCCTGACACGGGCC  
 CCACAGGTATCAAGTATGACCTAGATCGCCACCAGTACAACACTACGTGGATGCCGTGTGTTACGAGAACCG  
 CCTGCATTGGTTTCCAAGTACTTCCCCTACCTCGTGCTCCTGCACACCCTCATCTTCTGGCCTGCAGC  
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 CCTGGTCATCTTCTACGGCCTCATCTGCATGTACACCTGTGGTGGATGCTCCGGCGCTCCCTCAAGAAG  
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 CTGCGAGAGAACCTGCGGGCGTGCACATCAAGTTCACTGACATCAAGGAGATCCCACTGTGGATCTACA  
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 GTGGAGCTGGGCGAGTGTCCCCTGCTCAAGCGCAGCGGCCTGGTGGTAGAGGAGGACTTGTTTCAGCACAC  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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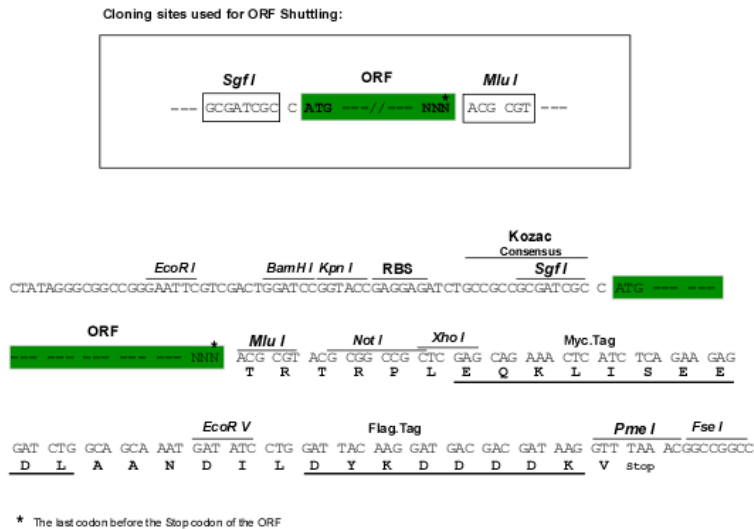
**Protein Sequence:** >RR209103 representing NM\_001024782  
 Red=Cloning site Green=Tags(s)

MIPVTELRYFADTQPAYRILKPWWVFTDYISIVMLMIAVFGGTLQVTQDKMICLPCKWVTKDSCNDSFR  
 GWGASSPEPTYPNSTVLPTDPTGPTGIKYDLDRHQYNYVDAVCYENRLHWFACYFPYLVLHLTLIFLACS  
 NFWFKFPRTSSKLEHFVSILLKCFDSPWTRALSETVVEESDPKPAF SKMNGSMDKKSSTVSEDVEATVP  
 MLQRTKSRIEQIVDRSETGVLDKKEGEQAKALFEKVKKFRTHVEEGDIVYRLYMRQTIKVIKFFLIIC  
 YTVYYVHNIKFDVDCTVDIESLTGYRTRYCAHPLATLTKILASFYISLVIFYGLICMYTLWMLRRSLKK  
 YSFESIREESSYSDIPDVKNDFAFMLHLIDQYDPLYSKRFAVFLSEVSENKLRQLNLNNEWTLDKLRQRL  
 TKNAQDKLELHFLM LSGIPDVF DLELEVLKLELIPDVTIPPSIAQLTGLKELWLYHTAAKIEAPALAF  
 LRENLRALHIKFTDIKEIPLWIYSLKTLEELHLTGNSAENNRIVIDGLRELKRLKVLRLKSNLSKLPQ  
 VVTDVGVHLQKLSINNEGTKLIVLNSLKKMVNLTELELIRCDLERIPHSIFSLHNLQEIDLKDNNLKTIE  
 EIISFQHLHRLTCLKLWYNHIAYIPIQIGNLTNLERLYLNRNKIEKIPTQLFYCRKLRYLDSLHNNLTLL  
 PADIGLLQNLQNLAVTANRIEALPPELFQCRKLRALHLGNNVLQSLPSRVGELTNLTQIELRGNRLECLP  
 VELGECPLLKRSGLVVEEDLFSTLPPEVKERLWRADKEQA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

Cloning Scheme:



ACCN: NM\_001024782

ORF Size: 2430 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\\_001024782.1](#), [NP\\_001019953.1](#)

**RefSeq Size:** 3328 bp

**RefSeq ORF:** 2433 bp

**Locus ID:** 311846

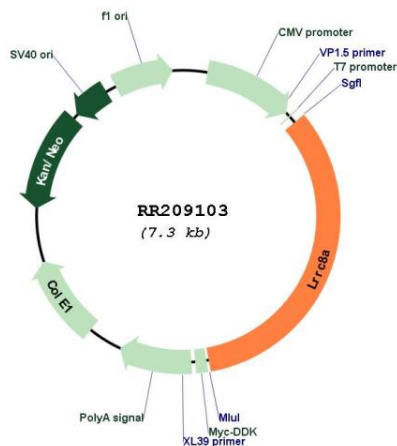
**UniProt ID:** [Q4V8I7](#)

**Cytogenetics:** 3p12

**MW:** 94.2 kDa

**Gene Summary:** 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). Mediates efflux of amino acids, such as aspartate and glutamate, in response to osmotic stress (PubMed:28833202). Required for in vivo channel activity, together with at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition (PubMed:28833202). Can form functional channels by itself (in vitro). Involved in B-cell development: required for the pro-B cell to pre-B cell transition (By similarity). Also required for T-cell development (By similarity). [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RR209103