

## Product datasheet for **RN209103**

### **Lrrc8a (NM\_001024782) Rat Untagged Clone**

#### **Product data:**

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



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**Fully Sequenced ORF:** >RN209103 representing NM\_001024782  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATTCCGGTGACAGAGCTCCGCTACTTCGCGGACACGCAGCCAGCATACCGGATCCTGAAGCCGTGGT  
 GGGATGTGTTCACTGACTACATCTCCATTGTGTCATGCTGATGATTGCTGTCTTTGGGGGACACTGCAAGT  
 CACCCAGGACAAGATGATCTGCCTACCTTGTAAAGTGGGTACCAAAGACTCCTGCAACGACTCCTCCGG  
 GGCTGGGGGGCCTCCAGCCCAGAGCCACTTACCCCAACTCCACAGTCTGCCTACTCCTGACACGGGCC  
 CCACAGGTATCAAGTATGACCTAGATCGCCACCAGTACAACACTACGTGGATGCCGTGTGTTACGAGAACCG  
 CCTGCATTGGTTTCCAAGTACTTCCCCTACCTCGTGCTCCTGCACACCCTCATCTTCTGGCCTGCAGC  
 AACTTCTGGTTCAAGTCCCACGCACCAGCTCGAAGCTGGAGCACTTCGTGTCTATCCTGCTCAAGTGT  
 TTGATTCGCCATGGACCACACGGGCCCTGTCAGAGACAGTAGTGGAGGAGAGTGACCCCAAGCCAGCCTT  
 CAGCAAGATGAATGGCTCCATGGACAAGAAGTCATCCACGGTCAGTGAGGATGTGGAGGCCACTGTGCC  
 ATGCTGCAGCGGACCAAGTCACGGATTGAGCAGGGCATCGTGGACCGCTCCGAGACAGGTGTGCTGGACA  
 AGAAGGAAGGGGAGCAGGCGAAGGCACTGTTTGAGAAGGTGAAGAAGTCCGGACCCATGTGGAGGAGGG  
 GGACATCGTGTACCGCCTCTACATGCGGCAGACCATCATCAAGGTGATCAAGTCTTCTCTCATCATCTGC  
 TACACCGTGTACTATGTGCACAACATCAAGTTTGACGTGGACTGCACCGTGGACATCGAGAGCCTGACAG  
 GCTACCGCACCTACCGCTGTGCCACCCTCTGGCCACCCTCTTCAAGATCCTGGCATCCTTCTACATCAG  
 CCTGGTCATCTTCTACGGCCTCATCTGCATGTACACCTGTGGTGGATGCTCCGGCGCTCCCTCAAGAAG  
 TACTCGTTTGAGTCGATCCGAGAGGAGAGCAGCTACAGCGACATCCAGACGTCAAGAATGACTTCGCT  
 TCATGTTGCACCTCATTGACCAGTATGACCTCTCTACTCAAAGCGCTTCGCCGTCTTCTGTCTGAGGT  
 GAGTGAGAACAAGCTGCGTCAGCTGAACCTCAACAACGAGTGGACGCTGGACAAGCTGCGCCAGCGGCTC  
 ACCAAAAACGCCAGGACAAGCTGGAGCTGCACCTCTTCATGCTGAGCGGCATCCCGGACACCGTGTGTTG  
 ACCTGCTGGAGTTAGAGGCTCCTGAAGCTGGAAGTATCCCGACGTGACCATCCCGCCAGCATCGCCCA  
 GCTCACAGGCCTCAAGGAGCTCTGGCTGTACCACACGGCAGCCAAAGATCGAGGCTCCCGCCTGGCCTTC  
 CTGCGAGAGAACCTGCGGGCGCTGCACATCAAGTTCACTGACATCAAGGAGATCCCACTGTGGATCTACA  
 GCCTGAAGACACTGGAGGAGCTGCACTTGACAGGCAACCTGAGCGCAGAGAACAACCGCTACATCGTCAT  
 TGACGGACTGCGGGAGCTCAAACGCCTAAGGTGCTGCGGCTCAAAGCAACCTGAGCAAGCTGCCGCAG  
 GTGGTCACGGACGTGGGCGTGCACCTGCAGAAGCTGTCCATCAACAATGAGGGCACCAGCTCATCGTCC  
 TCAACAGCCTCAAGAAGATGGTTAACCTGACAGAGCTGGAGCTGATCCGCTGCGACCTGGAGCGTATCCC  
 TCACTCCATCTTTAGCCTCCACAACCTGCAGGAGATCGACCTGAAGGACAACAACCTCAAGACCATCGAG  
 GAGATCATCAGCTTCCAGCATCTGCACCGCCTCACCTGCCTTAAGCTGTGGTACAACCACATCGCCTACA  
 TCCCAATCCAGATCGGCAACCTCACCAACCTTGAGCGCCTCTACCTGAACCGCAACAAAATCGAGAAAAT  
 TCCCACCCAGCTCTTCTACTGCGCAAGCTGCGCTACCTGGACCTCAGCCACAACAACCTGACCTTGCTC  
 CCCGCTGACATTGGCCTTTGCAGAACCTCCAGAACCTGGCCGTCACAGCCAATAGGATCGAGGGCGCTCC  
 CCCCAGGCTCTTCCAGTGTGGAAGCTGCGGGCTCTACACCTGGGCAACAATGTTCTGCAGTCACTGCC  
 CTCGAGAGTGGGTGAGCTGACCAACCTGACGCAGATTGAGCTTCGGGGCAACCGGCTGGAGTGCCTGCCC  
 GTGGAGCTGGGGCAGTGTCCCCTGCTCAAGCGCAGCGGCCCTGGTGGTAGAGGAGGACTTGTTCAGCACAC  
 TGCCGCTGAGGTGAAGGAACGGCTCTGGAGAGCTGACAAGGAGCAGGCC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul  
**ACCN:** NM\_001024782  
**Insert Size:** 2433 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001024782.1</a> , <a href="#">NP_001019953.1</a>
<b>RefSeq Size:</b>	3328 bp
<b>RefSeq ORF:</b>	2433 bp
<b>Locus ID:</b>	311846
<b>UniProt ID:</b>	<a href="#">Q4V8I7</a>
<b>Cytogenetics:</b>	3p12
<b>Gene Summary:</b>	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]