

## Product datasheet for **SC319580**

### LRRC8D (NM\_018103) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LRRC8D (NM_018103) Human Untagged Clone
Tag:	Tag Free
Symbol:	LRRC8D
Synonyms:	LRRC5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_018103.3  
CTCTTGGGAGCGGGACTTCTGCTCAAATCCTGTCCAGGGGCTTAAAAAGGAGGAGAATTG  
GGGGTGGTTGCCGGGAGGACCAGCACCTCCAGTTACTGGAGGGTTGATAGGGCCTTCTC  
CTTCCGTCCCCCTTACTAGGGGTATCCCTTGACAGATAAATGAGATTTTTTGATTCT  
TAAAAAGCCAGCTGCAGTGAAGAAGAACTGCTGCAGGTCGAGGGGAGAGAGGAAGTGCA  
CGGCTGTCTATAACGTGCTGCCGGTCTCAGGATGGAGGAGTGAAGTCTCCTGTGCCGT  
GGTCCAGCTCCGGAGCTCGCCCAAGCCGCTCCCCAGAGAGCGCCCTGAGAGAACAGG  
GTGGCCGCTTGGTCCAGGAATGTTACCCTTGCAGGAGTGCATCACTTAATGACATTCA  
GCCAATTACCGAATCCTGAAACCATGGTGGGATGTGTTTATGGATTACCTAGCTGTTGT  
TATGTTAATGGTAGCCATCTTTCAGGAACCATGCAACTACCAAAGATCAGGTGGTCTG  
TTTGCCAGTATTGCCATCTCCTGTAATTCAAAGGCACATACACCACCAGGAAATGCCGA  
GGTCACCACCAACATCCCAAAGATGGAAGCAGCCACCAACCAAGACCAAGATGGGCGGAC  
AACAAACGACATTTCTTTGGGACATCTGCTGTGACACCTGACATACCTCTCAGAGCCAC  
ATATCCTCGCACAGATTTTCGCACTTCCAAATCAGGAGGCAAAAGAGAGAAGAAAGATCC  
AACAGGTCGAAAAACAACTTGGATTTTCAGCAATATGTATTTAATCAAATGTGTTA  
CCATCTGGCCCTCCGTGGTATTCTAAGTACTTTCCATACCTAGCTCTTATACATACTAT  
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ACATTTTGTTCATATTAGGAAAGTGTCTTGAATCCCCTTGGACGACAAAAGCGTTGTC  
TGAGACGATGCGAAGACTCAGAGGAAAACAAGCAGAGAATAACAGGTGCCAGACTCT  
ACCAAAGCATGTTTCTACCAGCAGTGATGAAGGGAGCCCCAGTGCCAGTACACCAATGAT  
CAATAAACTGGCTTTAAATTTTCAGCTGAGAAGCCTGTGATTGAAGTCCCAGCATGAC  
AATCCTGGATAAAAAGGATGGAGAGCAGGCCAAAGCCCTGTTTGAGAAAGTGAAGGAGTT  
CCGTGCCCATGTGGAAGATAGTGACTTGATCTATAAACTCTATGTGGTCCAAACAGTTAT  
CAAAACAGCCAAGTTCATTTTTATTCTCTGCTATACAGCGAACTTTGTCAACGCAATCAG  
CTTTGAACACGTCTGCAAGCCAAAGTTGAGCATCTGATTGGTTATGAGGTATTTGAGTG  
CACCCACAATATGGCTTACATGTTGAAAAAGCTTCTCATCAGTTACATATCCATTATTTG  
TGTTTATGGCTTATCTGCCTCTACACTCTCTTCTGGTTATTCAGGATACCTTTGAAGGA



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ATATTCTTTCGAAAAAGTCAGAGAAGAGAGCAGTTTTAGTGACATTCCAGATGTCAAAA
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TGGTGTGTTCTTGTGAGAAAGTTAGTGAATAAACTTAGGGAAATTAGTTTGAACCATGA
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GCATCTGTTATGCTGTCGGGGTGCCCGATGCTGTCTTTGACCTCACAGACCTGGATGT
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TCTTCGCGATCACTTGAGATGCCTTACGTGAAGTTCACTGATGTGGCTGAAATTCCTGC
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GGAATCATCAGTTTCCAGCATTTAAAACGACTGACTTGTAAAATTATGGCATAACAA
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GATTGCAAGTGCTCACGTACAAGTTATTACAAGATAATGCATTTTAGGAGTAGATACATC
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ATGTTTGTAGGGTTTTAAGTCATTCATTTCCAAATCATTTTTTTTTTTCTTTGGGGAAA
GGGAAGGAAAAATTATAACTAATCTTGTTCTTTTTAAATGTTTGAACCTGGATG
CTGCCGCTACTGAATGTTTACAATGCTTGCTGCTAAAGTAAATGATTAATGACAT
TTTCTTACTATAAAAAAAAAAAAAAAAAAAAA

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- Restriction Sites:** Please inquire
- ACCN:** NM\_018103
- OTI Disclaimer:** 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).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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\\_018103.3](#), [NP\\_060573.2](#)

**RefSeq Size:** 3329 bp

**RefSeq ORF:** 2577 bp

**Locus ID:** 55144

**UniProt ID:** [Q7L1W4](#)

**Cytogenetics:** 1p22.2

**Domains:** LRR, LRR\_TYP, LRR\_BAC

**Protein Families:** Transmembrane

**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:24790029, PubMed:26530471, PubMed:26824658, PubMed:28193731). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (PubMed:24790029, PubMed:26824658, PubMed:28193731). Plays a redundant role in the efflux of amino acids, such as aspartate, in response to osmotic stress (PubMed:28193731). 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:24782309, PubMed:24790029, PubMed:26824658, PubMed:28193731). LRRC8A and LRRC8D are required for the uptake of the drug cisplatin (PubMed:26530471). Mediates the import of the antibiotic blasticidin-S into the cell (PubMed:24782309).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses a different segment for part of its 5' UTR, compared to variant 1. Variants 1 and 2 both encode the same protein.