

## Product datasheet for **MG210975**

### Lrrc8d (NM\_178701) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lrrc8d (NM_178701) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lrrc8d
Synonyms:	2810473G09Rik; 4930525N13Rik; A930019F03; Lrrc5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MG210975 representing NM\_178701  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGTTTACCCTTGCGGAAGTTGCTTCACTTAATGACATTAGCCAACTTACCGAATCCTGAAGCCATGGT  
 GGGACGTGTTTATGGATTACCTGGCAGTCGTTATGCTGATGGTAGCCATCTTTGCAGGGACCATGCAACT  
 TACCAAAGATCAGGTGGTCTGTTTGCCAGTGTTGCCGTCGCTGCAAATTCAAAAGCGCACACACCACCC  
 GGAAATGCTGACGTCACCACCGAAGTCCCAGGATGAAAACAGCCACACACCAAGACAAAACGGGCAGA  
 CGACAACGAATGACGTTGCCCTTTGGCACATCCGCTGTGACCCCTGACATACCTCTCCAAGCCACCCATCC  
 TCATGCAGAGTCCACCCTTCCCAATCAGGAGGTGAAGAAGGAGAAGAGAGACCCAACGGGCCGAAAAACC  
 AACTTGGATTTTACGAGTACGATTTTATCAATCAGATGTGTACCATCTGGCCCTCCCTGGTACTCCA  
 AGTACTTTCCATACCTTGCCCTTATACACACCATCATCCTTATGGTCAGTAGCAACTTTTGGTTCAAATA  
 TCCAAAACGTGCTCCAAGGTTGAGCATTTTGTTCGAATATTAGGAAAGTGTTCGAATCTCCCTGGACA  
 ACTAAGGCGCTGTGAGAGACGGCCTGTGAAGACTCTGAAGAGAACAAGCAGCGGATAACGGGCGCCGAGA  
 CCCTGCCGAAGCATGTGTCCACCAGCAGCGATGAGGGGAGCCCCAGCGCCAGCACCCCATGATCAACAA  
 AACTGGCTTCAAGTTCTGCTGAGAAACCGGTGATCGAAGTTCCAGCATGACAATCCTGGACAAGAAA  
 GACGGGGAGCAGGCCAAAGCCCTGTTTGAGAAAGTAAAGAAATCCGTGCCACGTGGAAGACAGTGACT  
 TGATCTATAAGCTCTATGGTCCAAACGCTCATCAAAGTCCAAAGTTCATTTTATCCTCTGCTACAC  
 TGCGAAGTTTGTCAACGCCATCAGCTTCGAGCAGCTGCAAGCCAAAAGTCGAGCACCTCACGGGGTAC  
 GAGGTGTTGAGTGCACCTACAATATGGCTACATGTTGAAAAGCTGCTCATCAGTACATCCATCA  
 TCTGCGTCTACGGCTTTATCTGCCTCTACACTCTTTCTGGCTATTGAGGATCCCTGAAAGGACTACT  
 GTTTGAGAAAGTCCGGGAGGAGAGCAGCTTCAGCGACATCCCGGATGTCAAGAAGCACTTTGCGTTCCTT  
 CTGCACATGGTCCAGTACGACCAGCTCTATTCCAAGCGTTTCGGTGTGTTCTTATCCGAAGTCAAGT  
 AGAACAACACTGAGGGAAATCAGCCTGAACCATGAGTGGACTTTGAGAAACTCAGGCAGCAGCTGTCCCG  
 CAATGCCAGGACAAGCAGGAGCTGCACCTCTTCATGCTGTCCGGGGTCCCGACGCTGTCTTTGACCTC  
 ACAGACCTGGATGTGCTAAAACCTGAACTGATCCCCGAAGCAAAAATTCCTGCCAAGATCTCTCAGATGA  
 CTAACCTCCAAGAGCTCCACCTCTGCCACTGCCCTGCAAAGGTGGAACAGACTGCCTTTAGCTTCTCCG  
 AGATCACTTGAGATGCCTTACGTGAAGTTCACGGATGTGGCTGAAATCCCCGCCTGGGTGTATCTGCTT  
 AAAACCTGCGGGAGCTGTACTTGATCGGCAATTTGAACTCGGAAAACAATAAGATGATCGGCCTTGAGT  
 CGCTGCGAGAGCTGCGGCACCTTAAGATCCTCCACGTGAAGAGTAATCTAACCAAGTCCCTCCAACAT  
 CACCGACGTGGTCCGCACCTCACGAAGCTCGTCATCCACAACGACGGGACCAAGCTCTTGGTCTGAAAC  
 AGCCTGAAGAAGATGATGAACGTGGCCGAGCTCGAGCTGCAGAACTGTGAGCTGGAGAGGATCCCACACG  
 CCATCTTCAGCCTCTCTAATCTGCAGGAGCTGGATTTAAAGTCAAACAACATCCGGACGATCGAGGAGAT  
 CATCAGCTTCAAACATCTGAAGCGACTGACTTGCTTAAAGCTGTGGCACAATAAAATTTGGGCCATCCCA  
 CCCTCCATTACCCATGTCAAGAACCTGGAGTCCCTCTACTTCTCCAACAACAAGCTCGAGTCTTTACCGA  
 CGGCAGTGTGTTAGTTTACAGAACTCAGATGCTTAGACGTCAGCTATAACAACATTTCCACGATCCCAT  
 AGAGATAGGTTTGCTCCAGAACCTGCAGCATTTGCACATCACAGGGAACAAGGTGGACATTTGCCCCAAA  
 CAGTTGTTTAAAGTGCCTGAAGTTGAGGACTTTGAACCTGGGGCAGAACTGTATCGCTCCCTGCCTGAGA  
 AAATCAGTCAGCTCACCCAGCTCACTCAGCTGGAGCTGAAGGGCAACTGCCTAGACCCGCTGCCAGCCCA  
 GCTGGGCCAGTGTGGATGCTCAAGAAGAGCGGGCTTGTGTAGAAGACCAACTGTTTGACACGCTGCCA  
 CTAGAAGTCAAAGAGGCATTGAATCAAGATGTCAATGTCCCTTTGCAAACGGGATT

ACCGGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

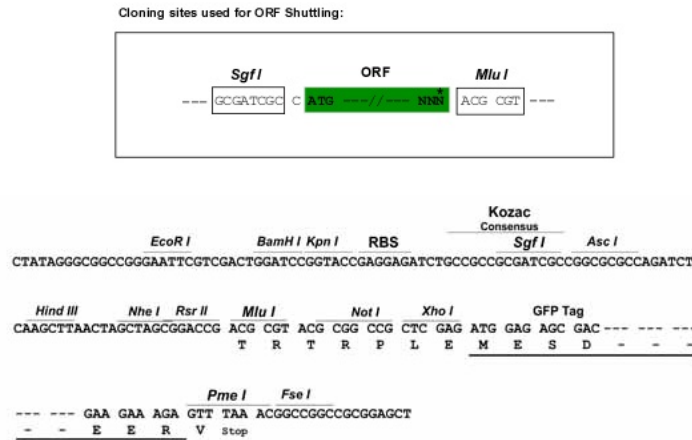
**Protein Sequence:** >MG210975 representing NM\_178701  
 Red=Cloning site Green=Tags(s)

```
MFTLAEVASLNDIQPTYRILKPWWDFMDYLAVVMLMVAIFAGTMQLTKDQVVCLPVLPSPANSKAHTPP
GNADVTTEVPRMETATHQDQNGQTTTNDVAFGTSVTPDIPLQATHPHAESTLPNQEVKKEKRDPTGRKT
NLDFQQYVFINQMCYHLALPWYSKYFPYLALIHITILMVSSNFWFKYPKTCCKVEHFVSILGKCFESPWT
TKALSETACEDSEENKQRITGAQTLPKHVSTSSDEGSPSASTPMINKTGFKFSAEKPVIEVPSMTILDKK
DGEQAKALFEKVRKFRAHVEDSDLIYKLYVVQTLIKTAKFIFILCYTANFVNAISFEHVCKPKVEHLTGY
EVFECTHNMAYMLKLLISYISIIICVYGFICLYTLFWLFRIPLKEYSFEKVREESSFSDIPDVKNDF AFL
LHMVDQYDQLYSKRFGVFLSEVSENKLRREISLNHEWTFEKLQRQHVSRNAQDKQELHLFMLSGVDPDAVFDL
TDLDVLKLELIPKIPAKISQMTNLQELHLCHCPAKVEQTAFSFLRDHLRCLHVKFTDVAEIPAWVYLL
KNLRELYLIGNLSENKMGIGLESLRELRLKILHVKSNTKVPSNITDVAPHLTKLVIHNDGTLLVNL
SLKMMNVAEELQNCERIPHAIFSLSNLQELDLKSNNIRTIEEIIISFQHLKRLTCLKLWHNKIVAIP
PSITHVKNLESLYFSNNKLESLPTAVFSLQKLRCLDVSYNINISTIPIEIGLLQNLQHLHITGNKVDILPK
QLFKCVKLRTLNLGQNCIASLPEKISQLTQLTQLELKGNCLDRLPAQLGQCRMLKKSGLVVEDQLFDTLP
LEVKEALNQDVNVPFANGI
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

Cloning Scheme:



ACCN: NM\_178701

ORF Size: 3917 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\\_178701.2](#)

**RefSeq Size:** 3906 bp

**RefSeq ORF:** 2580 bp

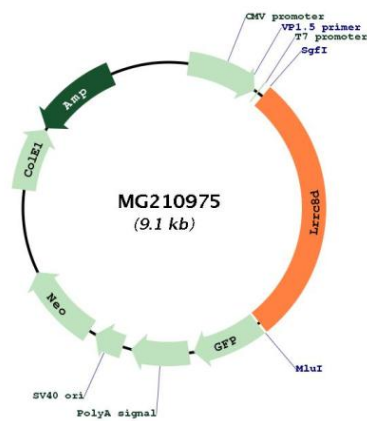
**Locus ID:** 231549

**UniProt ID:** [Q8BGR2](#)

**Cytogenetics:** 5 E5

**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. 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. Channel activity requires LRRC8A plus at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG210975