

Product datasheet for **MR221965**

Lrrc8a (NM_177725) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lrrc8a (NM_177725) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrrc8a
Synonyms:	Lrrc8; mKIAA1437
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR221965 representing NM_177725
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATTCCGGTGACAGAGCTCCGCTACTTTGCGGACACACAGCCAGCATACCGGATCCTGAAGCCTTGTT
 GGGATGTGTTCACTGATTACATCTCCATCGTCATGCTGATTGCTGTCTTTGGAGGGACGCTGCAAGT
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 GGCTGGGACGCTCCAGCCAGAGCCACTTACCCAACTCCACAGTCTGCCGACGCTGACACAGGCC
 CCACAGGTATCAAGTATGACCTAGACACCAGTACAACACTACGTGGATGCGGTGTGCTACGAGAACCG
 CCTGCATTGGTTTCCAAGTACTTCCCCTACCTCGTGCTTCTGCACACCCTCATCTTCTGGCCTGTAGC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >MR221965 representing NM_177725
Red=Cloning site Green=Tags(s)

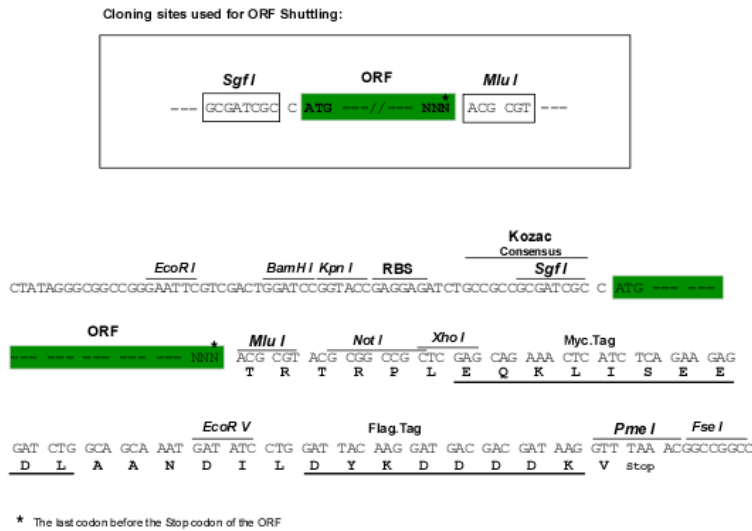
MIPVTELRYFADTQPAYRILKPWWVFTDYISIVMLIAVFGGTLQVTQDKMICLPCKWVTKDSCNDSFR
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YSFESIREESSYSDIPDVKNDFAFMLHLIDQYDPLYSKRFAVFLSEVSENKLRQLNLNNEWTLDKLRQRL
TKNAQDKLELHFLM LSGIPDVFDFLVELEV LKLELIPDVTIPPSIAQLTGLKELWLYHTAAKIEAPALAF
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VVTDVGVHLQKLSINNEGTKLIVLNSLKKMVNLTELELIRCDLERIPHSIFSLHNLQEIDLKDNNLKTIE
EIIISFQHLHRLTCLKLWYNHAIYIPIQIGNLTNLERLYLNRNKIEKIPTQLFYCRKLRYLDL SHNNLTFL
PADIGLLQNLQNLAVTANRIEALPPELFQCRKLRALHLGNNVLQSLPSRVGELTNLTQIELRGNRLECLP
VELGECPLLKRSGLVVEEDLFSTLPPEVKERLWRADKEQA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9003_h10.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_177725

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_177725.4](#), [NP_808393.1](#)

RefSeq Size: 4254 bp

RefSeq ORF: 2433 bp

Locus ID: 241296

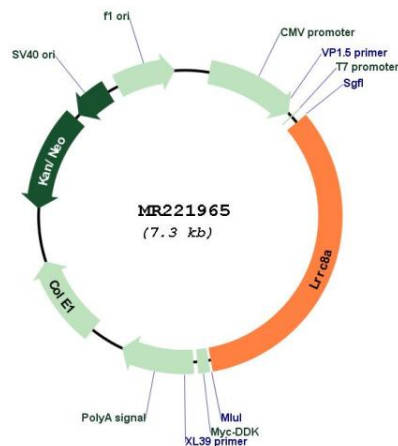
UniProt ID: [Q80WG5](#)

Cytogenetics: 2 B

MW: 94.6 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:29769723). 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 (By similarity). Required for channel activity, together with at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition. Can form functional channels by itself (in vitro) (By similarity). Involved in B-cell development: required for the pro-B cell to pre-B cell transition (PubMed:14660746, PubMed:24752297). Also required for T-cell development (PubMed:24752297).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221965