

## Product datasheet for **RG219062**

### **SLC8A3 (NM\_182932) Human Tagged ORF Clone**

#### **Product data:**

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Product Type:</b>             | Expression Plasmids     |
| <b>Tag:</b>                      | TurboGFP                |
| <b>Symbol:</b>                   | SLC8A3                  |
| <b>Synonyms:</b>                 | NCX3                    |
| <b>Mammalian Cell Selection:</b> | Neomycin                |
| <b>Vector:</b>                   | pCMV6-AC-GFP (PS100010) |
| <b>E. coli Selection:</b>        | Ampicillin (100 ug/mL)  |



ORF Nucleotide Sequence: >RG219062 representing NM\_182932  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCGTGTTAAGGTTGCAGCCTCTACCTCTGCCTTCTCCATTTTGGGCTGGTTACCTTTGTGCTCT  
TCCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGCACAGGGCAGAACAATGAGTC  
CTGTTCAAGGTCATCGGACTGCAAGGAGGGTGTATCTGCCAATCTGGTACCCGGAGAACCCTTCCCTT  
GGGGACAAGATTGCCAGGGTCATTGTCTATTTTGTGGCCCTGATATACATGTTCTTGGGGTGTCCATCA  
TTGTGACCGCTTCATGGCATCTATTGAAGTCATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACC  
CAATGGAGAAACACGACACAACCACTATTTCGGGTCTGGAATGAAACTGTCTCCAACCTGACCCCTTATGGCC  
CTGGGTTCTCTGCTCTGAGATACTCTCTCTTAATTGAGGTGTGTGGTCATGGGTTTATTGCTGGTG  
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CGTGATCCCAGACGAGAGACTCGCAAGATCAAGCATCTACGAGTCTTCTTCATACCGCTGCTTGGAGT  
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TCTTTGCAATTTGTCTGCATCAGCGTGTCTTTGTACCGAAGGCGGCCACCTGGGAGGGGAGCTTGGTGG  
CCCCGTGGCTGCAAGCTCGCCACAACATGGCTCTTTGTGAGCCTGTGGCTCCTCTACATACTCTTTGCC  
ACACTAGAGGCCTATTGCTACATCAAGGGGTTT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence:

>RG219062 representing NM\_182932

Red=Cloning site Green=Tags(s)

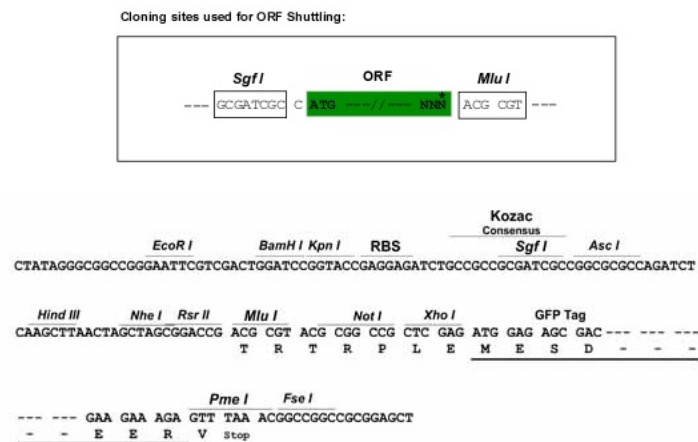
MAWLRQLPLTSAFLHFGVLTVFLFLNGLRAEAGGSGDVPSTGQNNESCSGSSDCKEGVILPIWYPENPSL  
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LGSSAPEILLSLIEVCGHGFAGDLGPSTIVGSAAFNMFIIGICVYVIPDGETRKIKHLRVFFITAAWS  
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KGGDMSKTMVVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIIDDDIFEDEHFFVRLSNVRIE  
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TVSAAGDEDEDESGEERLPSCFDYVMHFLTVFWKVLFACVPPTHEYCHGWACFAVSILIIIGMLTAIGDLA  
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WALQGQEFHVSAGTLAFSVTLFTIFAFVCISVLLYRRRPHLGGELGGPRGCKLATTWLFVSLWLLYILFA  
TLEAYCIKGF

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

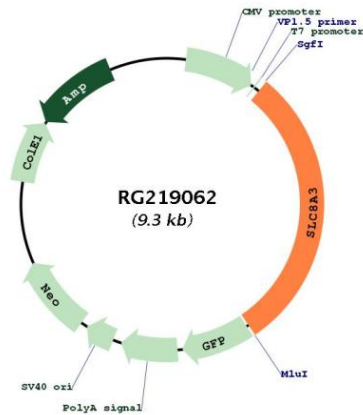
Cloning Scheme:



|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ACCN:</b>                  | NM_182932                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ORF Size:</b>              | 2763 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>                                                                      |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.                                                                                                                                                                                                                                                                                                                                                                                    |
| <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>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq:</b>                | <a href="#">NM_182932.3</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>RefSeq Size:</b>           | 5250 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq ORF:</b>            | 2766 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 6547                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID:</b>            | <a href="#">P57103</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Cytogenetics:</b>          | 14q24.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Protein Families:</b>      | Transmembrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Pathways:</b>      | Calcium signaling pathway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**Gene Summary:**

This gene encodes a member of the sodium/calcium exchanger integral membrane protein family. Na<sup>+</sup>/Ca<sup>2+</sup> exchange proteins are involved in maintaining Ca<sup>2+</sup> homeostasis in a wide variety of cell types. The protein is regulated by intracellular calcium ions and is found in both the plasma membrane and intracellular organellar membranes, where exchange of Na<sup>+</sup> for Ca<sup>2+</sup> occurs in an electrogenic manner. Alternative splicing has been observed for this gene and multiple variants have been described. [provided by RefSeq, Aug 2013]

**Product images:**

Circular map for RG219062