

## Product datasheet for **RG225773**

### **BIGM103 (SLC39A8) (NM\_001135146) Human Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                                     |
| Product Name:             | BIGM103 (SLC39A8) (NM_001135146) Human Tagged ORF Clone |
| Tag:                      | TurboGFP  |
| Symbol:                   | SLC39A8   |
| Synonyms:                 | BIGM103; CDG2N; LZT-Hs6; PP3105; ZIP8                   |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                 |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                  |



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**ORF Nucleotide Sequence:**

>RG225773 representing NM\_001135146  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCCCCGGGTGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCCGGCCTCGGAGGAGTGGCGGAGG  
 GGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTGAGCCTGTGGCGCGCA  
 GCTCCAGCACTTCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCTGGCCAGCTGCAC  
 TTCAACCAGTGTAACTGCTGAAGAGATCTTTCCCTTCATGGCTTTCAAATGCTACCCAAATAACCA  
 GCTCCAAATTCTGTCTGTCCAGCAGTCTTACAGCAATTGAACTTTCACCCATGTGAGGATCGGCC  
 CAAGCACAAAACAAGACCAAGTCATTGAGAAGTTGGGGATATGGATTCCTGTGAGTACGATTATTAAT  
 CTGGCATCTCCTCGGATTGATTTGACTCCACTGATAAAGAAATCTTATTTCCAAAGATTTGACCT  
 TTTTGTGGGGCTGGCTATTGGGACTCTTTTTCAAATGCAATTTCCAACCTATTCCAGAGGCATTGG  
 ATTTGATCCCAAAGTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTACCTACTTTTC  
 TTTTTGAAAGAATGCTAAAGATGTTATTAAGACATATGGTCAGAATGGTCATACCCACTTTGAAATG  
 ATAACCTTTGGTCTCAAGAAAAAATCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTA  
 TGCAAATCCTGTGTACAGAAGCTAATGGACATATCCATTTTGATAATGTGAGTGTGGTATCTCTACAG  
 GATGGAAAAAAGAGCCAAGTTCATGTACCTGTTTGAAGGGGCCAAACTGTCAGAAATAGGGACGATTG  
 CCTGGATGATAACGCTCTGCGATGCCCTCCACAATTTATCGATGGCCTGGCGATTGGGGCTTCTGCAC  
 CTTGTCTCTCCTCAGGGACTCAGTACTCCATAGCAATCCTATGTGAGGAGTTTCCCCACGAGTTAGGA  
 GATTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTGTATTCAACTTCTTTCTGCAT  
 GTTCTGCTATGTTGGGCTAGCTTTTGGCATTGTTGGTGGCAACAATTTGCTCCAAATATTATATTTGC  
 ACTTGCTGGAGGCATGTTCTCTATATTTCTCTGGCAGATATGTTCCAGAGATGAATGATATGCTGAGA  
 GAAAAGGTAAGTGAAGAAAAACCGATTTACCTTCTTATGATTGAGAATGCTGGAATGTTAACTGGAT  
 TCACAGCCATTCTACTATTACCTTGTATGACAGGAGAAATCGAATTGGAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG225773 representing NM\_001135146  
 Red=Cloning site Green=Tags(s)

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLQMGAAASRVGVPEPQLH  
 FNQCLTAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPHKTRPSHSEVWGYGFLSVTIIN  
 LASLLGLILTPLIKSYFPKILTFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLF  
 FFERMLKMLLKYQNGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVSLQ  
 DGKKEPSSCTCLKGPKLSEIGTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTIAILCEEFPHELG  
 DVFILLNAGMSTRQALLFNFLSACSCYVGLAFGILVGNNAFNIIIFALAGMFLYISLADMPEMNDMLR  
 EKVTGRKTDFTFFMIQNAGMLTGFTAILLITLYAGEIELE

TRTRPLE – GFP Tag – V

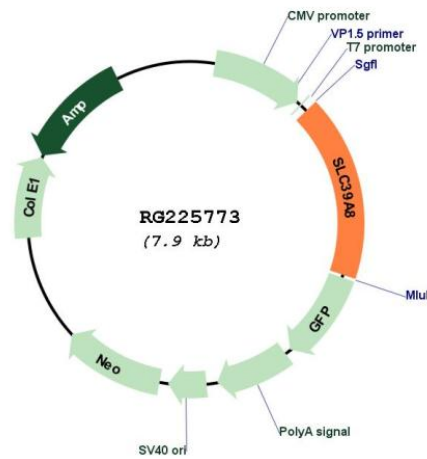
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001135146

**ORF Size:** 1380 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.

|                               |   |
|-------------------------------|---|
| <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_001135146.2</a>  |
| <b>RefSeq Size:</b>           | 3187 bp   |
| <b>RefSeq ORF:</b>            | 1383 bp   |
| <b>Locus ID:</b>              | 64116   |
| <b>UniProt ID:</b>            | <a href="#">Q9C0K1</a>  |
| <b>Cytogenetics:</b>          | 4q24  |
| <b>Protein Families:</b>      | Transmembrane   |
| <b>Gene Summary:</b>          | This gene encodes a member of the SLC39 family of solute-carrier genes, which show structural characteristics of zinc transporters. The encoded protein is glycosylated and found in the plasma membrane and mitochondria, and functions in the cellular import of zinc at the onset of inflammation. It is also thought to be the primary transporter of the toxic cation cadmium, which is found in cigarette smoke. Multiple transcript variants encoding different isoforms have been found for this gene. Additional alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Oct 2008] |