

## Product datasheet for **MG219980**

### Gramd2 (NM\_001033498) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd2 (NM_001033498) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gramd2
Synonyms:	BC064463; Gramd2a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG219980 representing NM_001033498 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACACATTTCCCTCTAGCAACCAACAAATGCACGGGAAGATGGCACCTCTGAAGAGCCATGTGCCCT  
GCACGGAGAAACCAGGAAAGGTCCAGGAGCCTCCAGATGATGGCAGTCTGCACTGGTCAGAAGGCTCAA  
GGGTGAAGACATAAAGAAGTATAGCCGGGAAGGGACACTACGGAGCAAATACAACCAACAATACCACAAG  
CTGTTTAAAGATATCCCCTGGAGGAGGTGGTCTCAAAGTGTGTTCTGTGCCCTCCAGAGAGACTCC  
TTCTCCATGGTCGGCTCTATATCTCTCCAAGTGGCTTTGCTTCCATGCCAGCCTCTTTGGCAAGGATAT  
CAAGGTGGTCATTCTGTGGTATCTGTGCAATTGATCAAAAAACACAAGATGGCAGGACTCCTTCCAAT  
GGACTGGCCATCACCACAACACAGCCAGAAGTATGTCTTTGTGTCTCTGCTTTCCCGGACAGTGTAT  
ATGACATGCTGAGGAGGGTCTGCACTCACCTGCAGCCTCCAGCAAGAAGAGTCTGAGTATAAGGAAAT  
TCCGGAGGAAGCCGAGTGCAGTCCCGGAAGTCTTATCCCGAGATGAAGTGGAGAAAAGCATGCTCA  
GCCCCGCATCCCTGTCACTCCAGACAGCATCTTGTATCTCTCAGATCCCGACAGACTCCACAGATA  
GCTGCTTCCCCTCAGGAAGCCTCCAGGGTCTGAGGCCGTCTGTGAGAAAGATGCATTGGAGGAAGGCC  
CAGCACGGACCAGGAAGTGGGCTGTGGATTCTCGGCTCCTCAAGGTCACTTTGTGATGATCTGCTTT  
CTAGTCTGTCTCGTCTATCTGGCATTCCGAATCTCCAGGCTGGAACAGCAATTATGTTCCCTGAGCT  
GGGCAGTCCACTCCAAGGGACAGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG219980 representing NM\_001033498  
 Red=Cloning site Green=Tags(s)

MDTFPSSNQMHGKMAPLKSHVPCTEKPQKVPQPPDDGSLHWSEGSKGEDIKKYSREGTLRSKYNQYHK  
 LFKDIPLEEVVLKVCSCALQRDLLLHGRLYISPNWLCFHASLFGKDIKVVIPVVSQVLIKKHKMARLLPN  
 GLAITTNTSQKYVFSLLSRDSVYDMLRRVCTHLQPSKKSLRIRKFPPEAECESSPEVLIPEMKWRKACS  
 APASLSLPDSISCSIQIPTDSTDSCFSPSRKPPGSEAVCEKDALEEEESTDQELRLWDSRLLKVIKVICF  
 LVLSSSYLAFRISRLEQQQLCSLSWGSPLPRDR

TRTRPLE - GFP Tag - V

**Restriction Sites:**

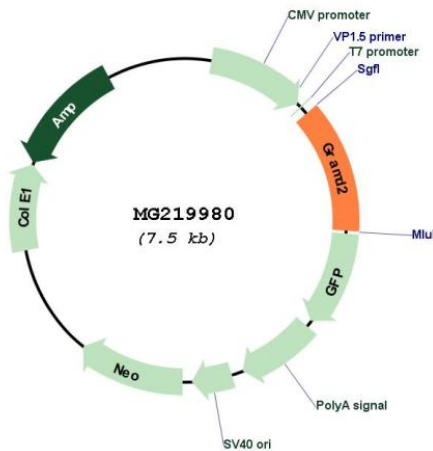
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001033498

**ORF Size:** 936 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>RefSeq:</b>	<a href="#">NM_001033498.2</a>
<b>RefSeq Size:</b>	1368 bp
<b>RefSeq ORF:</b>	939 bp
<b>Locus ID:</b>	546134
<b>UniProt ID:</b>	<a href="#">Q3V3G7</a>
<b>Cytogenetics:</b>	9 B
<b>Gene Summary:</b>	Participates in the organization of endoplasmic reticulum-plasma membrane contact sites (EPCS) with pleiotropic functions including STIM1 recruitment and calcium homeostasis. Constitutive tether that co-localize with ESYT2/3 tethers at endoplasmic reticulum-plasma membrane contact sites in a phosphatidylinositol lipid-dependent manner. Pre-marks the subset of phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2)-enriched EPCS destined for the store operated calcium entry pathway (SOCE).[UniProtKB/Swiss-Prot Function]