

Product datasheet for **MR219980**

Gramd2 (NM_001033498) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gramd2 (NM_001033498) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gramd2
Synonyms:	BC064463; Gramd2a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR219980 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGACACATTTCCCTCTAGCAACCAACAAATGCACGGGAAGATGGCACCTCTGAAGAGCCATGTGCCCT
GCACGGAGAAACCAGGAAAGGTCCAGGAGCCTCCAGATGATGGCAGTCTGCACTGGTCAGAAGGCTCAA
GGGTGAAGACATAAAGAAGTATAGCCGGGAAGGGACACTACGGAGCAAATACAACCAACAATACCACAAG
CTGTTTAAAGATATCCCCTGGAGGAGGTGGTCTCAAAGTGTGTTCTGTGCCCTCCAGAGAGACTCC
TTCTCCATGGTCGGCTCTATATCTCTCCAAGTGGCTTTGCTTCCATGCCAGCCTCTTTGGCAAGGATAT
CAAGGTGGTCATTCTGTGGTATCTGTGCAATTGATCAAAAAACACAAGATGGCAGGACTCCTTCCAAT
GGACTGGCCATCACCAACAACACAGCCAGAAGTATGTCTTTGTGTCTCTGCTTTCCCGGACAGTGTAT
ATGACATGCTGAGGAGGGTCTGCACTCACCTGCAGCCTTCCAGCAAGAAGAGTCTGAGTATAAGGAAAT
TCCGGAGGAAGCCGAGTGCAGTCCCGGAAGTCTTATCCCGAGATGAAGTGGAGAAAAGCATGCTCA
GCCCCGCATCCCTGTCACTCCCAGACAGCATCTTTGTATCTCTCAGATCCCGACAGACTCCACAGATA
GCTGCTTCCCCTCCAGGAAGCCTCCAGGGTCTGAGGCCGTCTGTGAGAAAGATGCATTGGAGGAAGGCC
CAGCACGGACCAGGAAGTGAAGTGTGGATTCTCGGCTCCTCAAGGTCATCTTTGTGATGATCTGCTTT
CTAGTCTGTCTCGTCTATCTGGCATTCCGAATCTCCAGGCTGGAACAGCAATTATGTTCCCTGAGCT
GGGCAGTCCACTCCCAAGGGACAGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR219980 protein sequence
Red=Cloning site Green=Tags(s)

MDTFPSSNQMHGKMAPLKSHVPCTEKPGKVQEPDDGSLHWSEGSKGEDIKKYSREGTLRSKYNQQYHK
 LFKDIPLLEEVVLKVCSCALQRDLLLHGRLYISPNWLCFHASLFGKDIKVVIPVVSQLIKHKMARLLPN
 GLAITTNTSQKYVFSLLSRDSVYDMLRRVCTHLQPSSKKSLSIRKFPPEAECESEPEVLIPEMKWRKACS
 APASLSLPDSISCSIQIPTDSTDSCFSPSRKPPGSEAVCEKDALEEEPESTDQELRLWDSRLLKVIIFVMICF
 LVLSSSYLAFRISRLEQQQLCSLSWGSPLPRDR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001033498

ORF Size: 939 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_001033498.2](#)

RefSeq Size: 1368 bp

RefSeq ORF: 939 bp

Locus ID: 546134

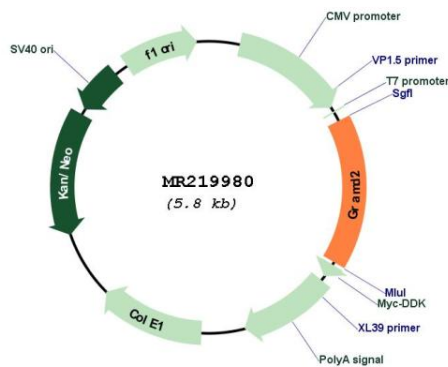
UniProt ID: [Q3V3G7](#)

Cytogenetics: 9 B

MW: 35.3 kDa

Gene Summary: 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-biphosphate (PI(4,5)P2)-enriched EPCS destined for the store operated calcium entry pathway (SOCE).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR219980