

## Product datasheet for **RC219050**

### GSDMA (NM\_178171) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GSDMA (NM_178171) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GSDMA
Synonyms:	FKSG9; GSDM; GSDM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC219050 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGACCATGTTTGAAAATGTCACCCGGCCCTGGCCAGACAGCTAAACCTCGAGGGGACCTGACACCAC  
 TTGACAGCCTCATCGACTTCAAGCGCTTCCATCCCTTCTGCCTGGTGCTGAGGAAGAGGAAGAGCAGCT  
 CTTCTGGGGGCCCGGTACGTCACCGACTACACGCTGCTGGATGTGCTTGGAGCCGGCAGCTCACCT  
 TCAGACCAACAGACACTGGGAATTTGGCTTTAAGAATATGCTGGACACCCGAGTGGAGGGAGATGTGG  
 ATGTACCAAGACGGTGAAGGTGAAGGGAACGGCAGGGCTCTCGCAGAACAGCACTCTGGAGGTCCAGAC  
 ACTCAGTGTGGCTCCCAAGGCCCTGGAGACCTTGACAGGAGGAAGCTGGCAGCAGACCACCCATTCCTG  
 AAGGAGATGCAAGATCAAGGGGAGAACCTGTATGTGGTATGGAGGTGGTGGAGACGGTGCAGGAGGTCA  
 CACTGGAGCGAGCCGCAAGGCAGAGGCCCTGCTTCTCCCTCCCTTCTTCGCCCCATTGGGGCTACAGGG  
 ATCCATAAATCACAAGGAGGCTGAACCATCCCAAGGGCTGCGTCTGGCCTTTTCGAGTGGAGACAGCTG  
 ATGGTCAAAGGCAAAGATGAGTGGGATATCCACATATCTGCAATGATAACATGCAAACCTTCCCTCCTG  
 GAGAAAAGTCAGGAGAGGAGAAGGTCATCCTTATCCAGGCATCTGATGTTGGGGACGTACACGAAGGCTT  
 CAGGACACTAAAAGAAGAAGTTCAGAGAGAGACCAACAAGTGGAGAAGCTGAGCCGAGTAGGGCAAAGC  
 TCCCTGCTCAGCTCCCTCAGCAAACCTTCTAGGGAAGAAAAGGAGCTACAAGACCTTGAGCTCGCACTTG  
 AAGGGCTCTAGACAAGGGACATGAAGTGAACCTGGAGGCACTCCCAAAAGATGTCTGCTATCAAAGGA  
 GGCCGTGGGCGCCATCCTCTATTTCTGGTGGAGCCCTAACAGAGCTAAGTGAAGCCCAACAGAAGCTGCTG  
 GTGAAATCCATGGAGAAAAGATCCTACCCGTGCAGCTAAAGCTGGTGGAGAGCAGATGGAACAGAAGCT  
 TCCTGCTGGATAAAGAGGGTGTTCCTCCCTGCAACCTGAGCTGCTCTCCCTTGGGGACGAGGAGCT  
 GACCCCTACGGAGGCTCTAGTCGGGCTGAGTGGCCTGGAAGTGCAGAGATCGGGCCCAATATATGTGG  
 GACCCAGACACCTCCCTCGCCTCTGTGCTCTTATGCAGGCCTCTCTCTCCTCAGCAGCTTACCAAGG  
 CCTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC219050 protein sequence  
 Red=Cloning site Green=Tags(s)

MTMFENVTRALARQLNPRGDLTPLDSLIDFKRFHPFCLVLRKRKSTLFWGARYVRTDYTLLDVLEPGSSP  
 SDPTDTGNFGFNMLDTRVEGDVDVPKTVKVKGTAGLSQNSTLEVQTLVAPKALETQLERKLAADHPFL  
 KEMQDQGENLYVMEVETVQEVTLERAGKAEACFSLPFFAPLGLQGSINHKEAVTIPKGCVLAFRVRQL  
 MVKGDWDIPIHCNDNMQTFPPGEKSGEEKVILIQASDVGDVHEGFRTLKEEVQRETQQVEKLSRVGQS  
 SLLSSLKLLGKKELQDLELALLEGALDKGHEVNLEALPKDVLLSKEAVGAILYFVGALTELESEAQQKLL  
 YKSMEKKILPVQLKLVESTMEQNFLLDKEGVFPLQPELLSSLGDEELTLTEALVGLSGLEVQRSGPQYMW  
 DPDTLPRLCALYAGLSLLQQLTKAS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6458\\_h08.zip](https://cdn.origene.com/chromatograms/mk6458_h08.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_178171

**ORF Size:** 1335 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\\_178171.5](#)
**RefSeq Size:** 2164 bp

**RefSeq ORF:** 1338 bp

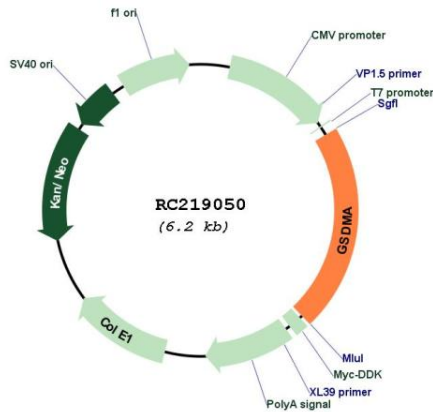
**Locus ID:** 284110

**UniProt ID:** [Q96QA5](#)
**Cytogenetics:** 17q21.1

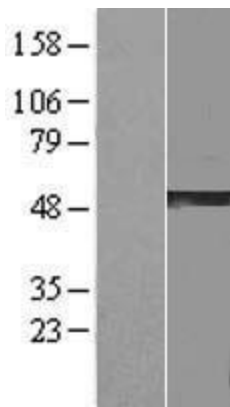
**MW:** 49.4 kDa

**Gene Summary:** May promote pyroptosis (Probable). Upon cleavage in vitro of genetically engineered GSDMA, the released N-terminal moiety binds to some types of lipids, such as possibly phosphatidylinositol (4,5)-bisphosphate. Homooligomerizes within the membrane and forms pores of 10 -15 nanometers (nm) of inner diameter, triggering cell death. Also binds to bacterial and mitochondrial lipids, including cardiolipin, and exhibits bactericidal activity (PubMed:27281216). The physiological relevance of these observations is unknown (Probable).[UniProtKB/Swiss-Prot Function]

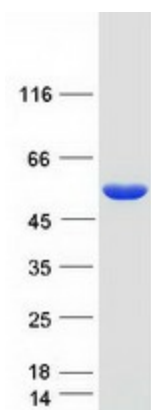
**Product images:**



Circular map for RC219050



Western blot validation of overexpression lysate (Cat# [LY406011]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219050 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GSDMA protein (Cat# [TP319050]). The protein was produced from HEK293T cells transfected with GSDMA cDNA clone (Cat# RC219050) using MegaTran 2.0 (Cat# [TT210002]).