

## Product datasheet for **MR207809**

### Gsdmd (NM\_026960) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gsdmd (NM_026960) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gsdmd
Synonyms:	1810036L03Rik; AW558049; DF5L; Dfna5l; Gsdmdc1; M2-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR207809 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCCATCGGCCCTTTGAGAAAGTGGTCAAGAATGTGATCAAGGAGGTAAGCGGCAGCAGAGGCGATCTCA  
 TTCGGTGGACAGCCTGCGGAACTCCACCAGCTTCAGGCCTACTGCCTTCTGAACAGGAAATTTCAAG  
 CTAAGGTTCTGAAAACCCGTTATTTCATGTGTCAACCTGTCAATCAAGGACATCCTGGAGCCAGTGCT  
 CCAGAACCAGAACCAGGAGTGTGGTCTCTCAAAGTCTCTGATGTCGTCGATGGGAACATTCAGGGCA  
 GAGTGTGTTGTCAGGCATGGGAGAAGGAAAAATTTCTGGTGGGGCTGCAGTGTCTGACAGTTCAGTGC  
 CTCATGAATGTGTATACTGCGTGTGACTCAGAAGACCTGGGAGACCATGCAGCATGAAAGGCACCTT  
 CAGCAGCCTGAGAACAAATCCTGCAACAGCTTCGGAGTCGTTGGGATGACCTGTTTGTGGTGACCGAGG  
 TGCTGCAGACAAAGGAGGAAGTGCAGATCACTGAGGTCCACAGCCAAGAGGGCTCAGGCCAGTTTACGCT  
 GCCTGGAGCTTTATGCTTGAAGGTGAAGGCAAGGGCCACAAAGCCGGAAGAAGATGGTGACCATTCT  
 GCAGGCAGCATCCTGGCATTCCGAGTGGCCAACCTGCTTATTGGCTCTAAATGGGATATCCTTCTCGTCT  
 CAGATGAGAAACAGAGGACCTTTGAGCCCTCCTCAGGTGACAGAAAAGCAGTGGGCCAGAGGCACCATGG  
 CCTCAATGTGCTTGTGCGCTTTGTTCCATCGGAAAGCAGCTCAGTCTCCTGTCAGATGGGATTGATGAG  
 GAGGAATTAATTGAGGCGGCAGACTTCCAGGGCCTGTATGCTGAGGTGAAGGCTTGTCTCAGAACTGG  
 AGAGCTTGAAATGGAGTTGAGACAACAGATACTGGTGAACATCGGAAAGATTTTACAGGACCAGCCAG  
 CATGGAAGCCTTAGAGGCCTCACTAGGGCAGGGCCTGTGCAGTGGCGCCAGGTGGAGCCTCTGGACGGC  
 CCAGCTGGCTGCATCCTTGAGTGTCTGGTGTGACTCTGGAGAAGTGGTCCGGAAGTCCGAGCCCTTA  
 TCTTCTACCTGCTGGGAGCACTGGCTGTGCTGAGTGAACCCAGCAGCAGCTGCTAAGGCTCTGGA  
 GACAACGGTGTGTCAAAGCAGCTGGAGTTGGTGAAGCAGCTTGGAAACAGAGCACCCCGTGGCAGGAG  
 CAGAGTCTGTGTCCCTGCCACCGTGCTCCTTGGGACTGCTGGGATGAAAAGAATCCACCTGGGTCT  
 TGCTAGAAGAATGTGGCCTAAGGCTGCAGGTAGAATCCCCCAGGTGCACTGGGAACCAACGCTCTGAT  
 CCCCACAAGTGCCTCTATGCCTCCCTGTTCTATTGTCAAGTCTAGGCCAGAAACCTTGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR207809 protein sequence  
 Red=Cloning site Green=Tags(s)

MPSAFEKVVKNVIKEVSGSRGDLIPVDSLNRNSTFRPYCLLNRFSSSRFWKPRYSCVNL SIKDILEPSA  
 PEPEPECFGSFKVSDVVDGNIQGRVMLSGMGEGKISGGAAVSDSSASMNVCILRVTQKTWETMQHERHL  
 QQPENKILQQLRSRGGDLFVVTEVLQTKKEEVQITEVHSQEGSGQFTLPGALCLKGEGKGHQSRRKMTIP  
 AGSILAFRVAQLLIGSKWDILLVSEKQRTFEPSSGDRKAVGQRHHGLNVLAALCSIGKQLSLLSDGIDE  
 EELIEAADFQGLYAEVKACSSSELESLEMELRQQILVNIQKILQDQPSMEALEASLGQGLCSGGQVEPLDG  
 PAGCILECLVLDSEGLVPELAAPIFYLLGALAVLSETQQQLLAKALETTLVSKQLELVKHVLEQSTPWQE  
 QSSVSLPTVLLGDCWDEKNPTWVLLLEECGLRLQVESPVHWEPTSLIPTSAFYASLFLSSLGQKPC

**TR**TRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



ACCN: NM\_026960

ORF Size: 1461 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

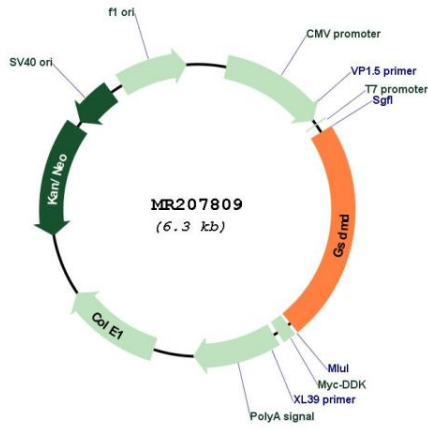
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

<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_026960.4</a>
<b>RefSeq Size:</b>	1776 bp
<b>RefSeq ORF:</b>	1464 bp
<b>Locus ID:</b>	69146
<b>UniProt ID:</b>	<a href="#">Q9D8T2</a>
<b>Cytogenetics:</b>	15 D3
<b>MW:</b>	53.2 kDa
<b>Gene Summary:</b>	<p>Gasdermin-D, N-terminal: Promotes pyroptosis in response to microbial infection and danger signals. Produced by the cleavage of gasdermin-D by inflammatory caspases CASP1 or CASP4 in response to canonical, as well as non-canonical (such as cytosolic LPS) inflammasome activators (PubMed:26611636, PubMed:26375259, PubMed:26375003, PubMed:27418190, PubMed:27385778, PubMed:27383986). After cleavage, moves to the plasma membrane where it strongly binds to membrane inner leaflet lipids, including monophosphorylated phosphatidylinositols, such as phosphatidylinositol 4-phosphate, bisphosphorylated phosphatidylinositols, such as phosphatidylinositol (4,5)-bisphosphate, as well as phosphatidylinositol (3,4,5)-trisphosphate, and more weakly to phosphatidic acid and phosphatidylserine. Homooligomerizes within the membrane and forms pores of 10 - 15 nanometers (nm) of inner diameter, allowing the release of mature IL1B and triggering pyroptosis. Exhibits bactericidal activity. Gasdermin-D, N-terminal released from pyroptotic cells into the extracellular milieu rapidly binds to and kills both Gram-negative and Gram-positive bacteria, without harming neighboring mammalian cells, as it does not disrupt the plasma membrane from the outside due to lipid-binding specificity. Under cell culture conditions, also active against intracellular bacteria, such as <i>Listeria monocytogenes</i>. Strongly binds to bacterial and mitochondrial lipids, including cardiolipin. Does not bind to phosphatidylethanolamine or phosphatidylcholine (PubMed:27383986).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR207809