

Product datasheet for **MG207809**

Gsdmd (NM_026960) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Gsdmd (NM_026960) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Gsdmd |
| Synonyms: | 1810036L03Rik; AW558049; DF5L; Dfna5l; Gsdmdc1; M2-4 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG207809 representing NM_026960
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCATCGGCCCTTTGAGAAAGTGGTCAAGAATGTGATCAAGGAGTAAGCGGCAGCAGAGGCGATCTCA
 TTCGGTGGACAGCCTGCGGAACCTACCAGCTTCAGGCCCTACTGCCTTCTGAACAGGAAATTTCAAG
 CTAAGGTTCTGAAACCCCGTTATTCATGTGTCAACCTGTCAATCAAGGACATCCTGGAGCCAGTGCT
 CCAGAACCAGAACCAGGAGTGTGGTCTCTCAAAGTCTCTGATGTCGTCGATGGGAACATTCAGGGCA
 GAGTGTGTTGTCAGGCATGGGAGAAGGAAAAATTTCTGGTGGGGCTGCAGTGTCTGACAGTTCAGTGC
 CTCATGAATGTGTATACTGCGTGTGACTCAGAAGACCTGGGAGACCATGCAGCATGAAAGGCACCTT
 CAGCAGCTGAGAACAAATCCTGCAACAGCTTCGGAGTCGTGGGATGACCTGTTGTGGTGACCGAGG
 TGCTGCAGACAAAGGAGGAAGTGCAGATCACTGAGGTCCACAGCCAAGAGGGCTCAGGCCAGTTACGCT
 GCCTGGAGCTTTATGCTTGAAGGTGAAGCAAGGGCCACAAAGCCGGAAGAAGATGGTGACCATTCTCT
 GCAGGCAGCATCCTGGCATTCCGAGTGGCCCAACTGCTTATTGGCTCTAAATGGGATATCCTTCTCGTCT
 CAGATGAGAAACAGAGGACCTTTGAGCCCTCCTCAGGTGACAGAAAAGCAGTGGGCCAGAGGCACCATGG
 CCTCAATGTGCTTGTGCGCTTTGTTCCATCGGAAAGCAGCTCAGTCTCCTGTCAGATGGGATTGATGAG
 GAGGAATTAATTGAGCGGCAGACTTCCAGGCCCTGTATGCTGAGGTGAAGGCTTGTCTCAGAACTGG
 AGAGCTTGAAATGGAGTTGAGACAACAGATACTGGTGAACATCGGAAAGATTTACAGGACCAGCCAG
 CATGGAAGCCTTAGAGGCCTCACTAGGGCAGGGCTGTGCAGTGGCGCCAGGTGGAGCCTCTGGACGGC
 CCAGCTGGCTGCATCCTTGAGTGTCTGGTGTGACTCTGGAGAAGTGGTCCCGAACTCGCAGCCCTTA
 TCTTCTACCTGCTGGGAGCACTGGCTGTGCTGAGTGAACCCAGCAGCAGCTGCTAGCTAAGGCTGGA
 GACAACGGTGTGTCAAAGCAGCTGGAGTTGGTGAAGCACGTCTTGAACAGAGCACCCCGTGGCAGGAG
 CAGAGTCTGTGTCCCTGCCACCGTGCTCCTTGGGACTGCTGGGATGAAAAGAATCCACCTGGGTCT
 TGCTAGAAGAATGTGGCCTAAGGCTGCAGGTAGAATCCCCCAGGTGCACTGGGAACCAACGCTCTGAT
 CCCCACAAGTGCCTCTATGCCTCCCTGTTCTATTGTCAAGTCTAGGCCAGAAACCTTGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207809 representing NM_026960
 Red=Cloning site Green=Tags(s)

MPSAFEKVVKNVIKEVSGSRGDLIPVDSLNRNSTSFRPYCLLNRFSSSRFWKPRYSCVNLSEIKDILEPSA
 PEPEPECFGSFKVSDVDGNIQGRVMLSGMGEGKISGGAAVSDSSASMNVCILRVTKTWETMQHERHL
 QQPENKILQQLRSRGGDLFVVTEVLQTKEEVQITEVHSQEGSGQFTLPGALCLKGEGKHQSRKKMVTIP
 AGSILAFRVAQLLIGSKWDILLVSDEKQRTFEPSSGDRKAVGQRHHGLNVLAAALCSIGKQLSLLSDGIDE
 EELIEAADFQGLYAEVKACSSSELESLEMELRQQILVNIQKILQDQPSMEALEASLQGLCSGGQVEPLDG
 PAGCILECLVLDSEGLVPELAAPIFYLLGALAVLSETQQQLLAKALETTVLQKLELVKHVLEQSTPWQE
 QSSVSLPTVLLGDCWDEKNPTWVLLLEECGLRLQVESPVHWEPTSLIPTSALYASLFLSSLGQKPC

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-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 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).

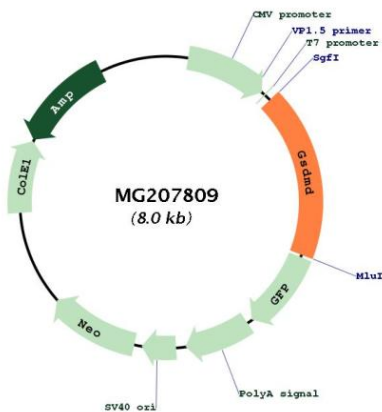
Reconstitution Method:

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.

RefSeq: [NM_026960.4](#)
RefSeq Size: 1776 bp
RefSeq ORF: 1464 bp
Locus ID: 69146
UniProt ID: [Q9D8T2](#)
Cytogenetics: 15 D3

Gene Summary: 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 *Listeria monocytogenes*. Strongly binds to bacterial and mitochondrial lipids, including cardiolipin. Does not bind to phosphatidylethanolamine or phosphatidylcholine (PubMed:27383986).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG207809