

Product datasheet for **MR213022**

Cgas (NM_173386) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cgas (NM_173386) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cgas
Synonyms:	E330016A19Rik; Mb21d1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR213022 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAAGATCCGCGTAGAAGGACGACGGCGCCACGCGCTAAGAAGCCGTCGCGAAGCGCGCCCGACGC
 AGCCCAGCAGGACCAGGGCCACGCGGAAAGCTGCGGCCGCAAAGGGGGCTCGATCGCGCGGGCGGA
 CGGTGACGGGACACCACGGAGAAGCCAGTGCCTCCAGGGCCCGAGTGCATCCAGCAAGGGCCACTGAG
 CTCACCAAAGATGCACAGCCCTCGGCCATGGACGCGCAGGAGCCACCGCGCGCCTGCCGTCGGGTGC
 CCCAGCAGCAGGCCATCCTGGATCCGGAGCTGCCCGCGTACGGGAGCCCGAGCCCGCGGATCCCGA
 GGCGCGGAAAGTCGTAAGGGGACCTAGCCACAGAAGGGGCGCGCTCCACCGGGCAGCCAGAGCGCCG
 CGAGGGTCCAGGAAGGAACCGGACAAGCTAAAGAAGGTGCTGGACAAATTGAGATTGAAACGCAAAGATA
 TCTCGGAGGCGCCGAGACGGTGAATAAGTTGTGGAACGCTGCTGCGCAGAATGCAGAAACGGGAGTC
 GGAGTTCAAAGGTGGAGCAGCTGAACACTGGCAGCTACTATGAACATGTGAAGATTTCTGCTCCTAAT
 GAATTTGATGTTATGTTAAACTGGAAGTCCCGAGGATTGAGCTACAAGAATATTGAAACAGGTGCTT
 TTTATCTTGAAATTCAAAAGAATCCACGAGGAAATCCGCTGAGTCATTTCTTAGAAGGGGAAGTATT
 ATCAGCTACCAAGATGCTGTCAAAGTTTAGGAAAATCATTAAAGAAGAAGTTAAAGAAATCAAAGATATA
 GATGTCAGTGTGGAGAAGGAAAAACCAGGAAGCCCTGCTGTAACACTTCTTATCAGGAACCTGAAGAAA
 TCTCTGTGGATATAATCTGGCTTTGGAGTCAAAGGCAGCTGGCCTATTAGTACCAAAGAAGGACTACC
 TATTCAAGGCTGGCTGGGCACAAAAGTGAGGACCAATCTAAGACGAGAGCCGTTTATCTCGTACCCAAG
 AATGCAAAGGATGAAAATAGTTTTCAAGGAGAGACCTGGCGCCTCTTTCTCTCACACTGAAAAGTACA
 TTTTAAAATTAATGAAATACCTTTTGGAAACAGTTGAAAAAAGAGTTTCAAGAGCTGGATGCATTCTGTTCC
 TACCATGTGAAAACCTGCCATCTTTCACATGTGGACCCAGGACCCGAGGACAGTCAGTGGACCCCAAGGA
 ACCTCAGCTCCTGCTTCGATAAGTTGTTAGCATTCTTTCTTGTGAGTGCCTCAGGACAGAGAACTGGATCA
 TTATTTTATTCAAAGTTCAATCTATTCTCAAGAACTAATTGACCGAAAAAGTAAAGAATTTCTATCG
 AAGAAAATTGAATATGAAAGAAATATGGGTTTCCAATTTTGGACAAGCTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR213022 protein sequence
 Red=Cloning site Green=Tags(s)

MEDPRRRTTAPRAKKPSAKRAPTQPSRTRAHAESCGPQRGARSRAERDGTTEKPRAPGPRVHPARATE
 LTKDAQPSAMDAAGATARPAVRVPQQAILDPELPAVREPQPPADPEARVVVRGPSHRRGARSTGQPRAP
 RGSRKEPKLKKVLDKLRKDI SEAAETVNKVVERLLRRMQKRESEFKGVEQLNTGSYYEHVKISAPN
 EFDVMFKLEVPIELQEYYETGAFYLVKFKRIPRGNPLSHFLEGEVLSATKMLSKFRKIIKEEVKEIKDI
 DVSVEKEKPGSPAVTLLIRNPEEISVDIILALESKGSWPISTKEGLPIQGWLGTKVRTNLRREPFLVPK
 NAKDGNFSQGETWRLFSHTEKYILNNHGIEKTCCESSGAKCCRKECLKMKYLLEQLKKEFQELDAFCS
 YHVKTAIFHMWTQDPQDSQWDPRLSSCFDKLLAFFLECLRTEKLDHYFIPKFNLFSQLIDRKSKEFLS
 KKIEYERNNGFPIDFKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_173386

ORF Size: 1524 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).

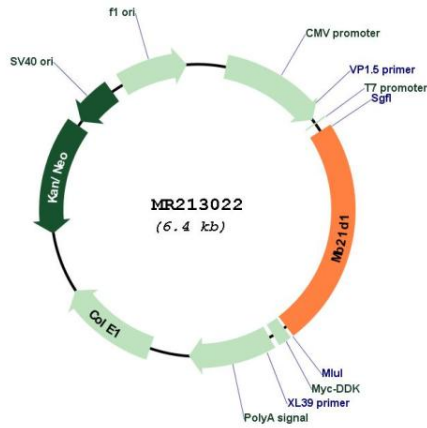
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_173386.2](#)

RefSeq Size: 4090 bp
 RefSeq ORF: 1524 bp
 Locus ID: 214763
 UniProt ID: [Q8C6L5](#)
 Cytogenetics: 9 E1
 MW: 58.2 kDa

Gene Summary: The protein encoded by this gene is a DNA binding cytosolic protein that catalyzes the synthesis of cyclic guanosine monophosphate-adenosine monophosphate (cGAMP) after sensing the presence of DNA in the cytoplasm. cGAMP binds another protein, Stimulator of interferon genes (STING), leading to the induction of interferons, and a host immune response. Reduced expression of this gene inhibits interferon induction in the presence of some viral infections. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]

Product images:



Circular map for MR213022