

## Product datasheet for **MG213022**

### **Cgas (NM\_173386) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cgas (NM_173386) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cgas
Synonyms:	E330016A19Rik; Mb21d1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG213022 representing NM\_173386  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAAGATCCGCGTAGAAGGACGACGGCGCCACGCGCTAAGAAGCCGTCGCGAAGCGCGCCCGACGC  
 AGCCCAGCAGGACCAGGGCCACGCGGAAAGCTGCGGCCGCAAAGGGGGCTCGATCGCGCGGGCGGA  
 CGGTGACGGGACACCACGGAGAAGCCAGTGCCTCCAGGGCCCGAGTGCATCCAGCAAGGGCCACTGAG  
 CTCACCAAAGATGCACAGCCCTCGGCCATGGACGCGCAGGAGCCACCGCGCGCCTGCCGTCGGGTGC  
 CCCAGCAGCAGGCCATCCTGGATCCGGAGCTGCCCGCGTACGGGAGCCCGAGCCCGCGGATCCCGA  
 GGCGCGGAAAGTCGTAAGGGGACCTAGCCACAGAAGGGGCGCGCTCCACCGGGCAGCCAGAGCGCCG  
 CGAGGGTCCAGGAAGGAACCGGACAAGCTAAAGAAGGTGCTGGACAAATTGAGATTGAAACGCAAAGATA  
 TCTCGGAGCGGCCGAGACGGTGAATAAGTTGTGGAACGCTGCTGCGCAGAATGCAGAAACGGGAGTC  
 GGAGTTCAAAGGTGGAGCAGCTGAACACTGGCAGCTACTATGAACATGTGAAGATTTCTGCTCCTAAT  
 GAATTTGATGTTATGTTAAACTGGAAGTCCCGAGGATTGAGCTACAAGAATATTATGAAACAGGTGCTT  
 TTTATCTTGTAATTTAAAAGAATCCACGAGGAAATCCGCTGAGTCATTTCTTAGAAGGGGAAGTATT  
 ATCAGCTACCAAGATGCTGTCAAAGTTTAGGAAAATCATTAAAGAAGAAGTTAAAGAAATCAAAGATATA  
 GATGTCAGTGTGGAGAAGGAAAAACCAGGAAGCCCTGCTGTAACACTTCTTATCAGGAACCTGAAGAAA  
 TCTCTGTGGATATAATTTGGCTTTGGAGTCAAAGGCAGCTGGCCTATTAGTACCAAAGAAGGACTACC  
 TATTC AAGGCTGGCTGGGCACAAAAGTGAAGGACCAATCTAAGACGAGAGCCGTTTATCTCGTACCCAAG  
 AATGCAAAGGATGAAAATAGTTTTCAAGGAGAGACCTGGCGCTCTTTCTCTCACACTGAAAAGTACA  
 TTTTGAATAATCACGGGATAGAGAAAACATGCTGTGAATCTCCGAGCAAAAATGCTCAGAAAAGATG  
 TTTAAAATTAATGAAATACCTTTTGGAAACAGTTGAAAAAAGAGTTTCAAGAGCTGGATGCATTCTGTTC  
 TACCATGTGAAAACCTGCCATCTTTCACATGTGGACCCAGGACCCGAGGACAGTCAAGTGGACCCAGGA  
 ACCTCAGCTCCTGCTTCGATAAGTTGTTAGCATTCTTTCTTGTGAGTGCCTCAGGACAGAGAAACTGGATCA  
 TTATTTTATTCAAAGTTCAATCTATTCTCTCAAGAACTAATTGACCGAAAAAGTAAAGAATTTCTATCG  
 AAGAAAATTGAATATGAAAGAAATAATGGGTTTCCAATTTTTGACAAGCTT

**ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA**

**Protein Sequence:**

>MG213022 representing NM\_173386  
 Red=Cloning site Green=Tags(s)

MEDPRRRTTAPRAKKPSAKRAPTQPSRTRAHAESCGPQRGARSRAERDGTTEKPRAPGPRVHPARATE  
 LTKDAQPSAMDAAGATARPVAVRVPQQAILDPELPAVREPOPPADPEARKVVRGPPSHRRGARSTGQPRAP  
 RGSRKEDPKLKKVLDKLRKRDISEAAETVNVVVERLLRRMQRESEFKGVEQLNTGSYYEHVKISAPN  
 EFDVMFKLEVPIELQEYYETGAFYLVKFKRIPRGNPLSHFLEGEVLSATKMLSKFRKI IKEEVKEIKDI  
 DVSVEKEKPGSPAVTLLIRNPEEISVDIILALESKGSWPISTKEGLPIQGWLGTKVRTNLRREPFYLVPK  
 NAKDGNFSFQGETWRLFSHTEKYILNNHGIEKTCCESSGAKCCRKECLKMKYLLEQLKKEFQELDAFCS  
 YHVKTAIFHMTQDPQDSQWDPRNLSSECFDKLLAFFLECLRTEKLDHYFIPKFNLSQELIDRKSKEFLS  
 KKIEYERNNGFPIDFKL

**TRTRPLE – GFP Tag – V**

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_173386

ORF Size: 1521 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).

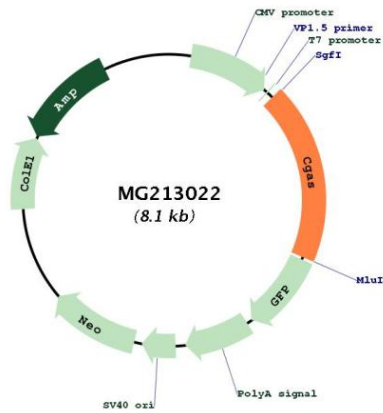
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the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

RefSeq: [NM\\_173386.2](#)

RefSeq Size: 4000 bp  
 RefSeq ORF: 1524 bp  
 Locus ID: 214763  
 UniProt ID: [Q8C6L5](#)  
 Cytogenetics: 9 E1

**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 MG213022