

Product datasheet for **MG211293**

Gaa (NM_008064) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gaa (NM_008064) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gaa
Synonyms:	E430018M07Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG211293 representing NM_008064
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAATATACGGAAGCCCCTCTGTTCGAACTCCGTGGTTGGGCGCTGCACCCCTTATCTCTGACTACAG
 CGGTCATCCTGGGTCATCTCATGCTTCGGGAGTTAATGCTGCTTCCCAAGACCTTCATGAGTCCTTTC
 AGGACTGTGGAAGACGTACCGACCTCACCACCAGGAAGGTTACAAGCCAGGGCCTCTGCACATCCAGGAG
 CAGACTGAACAGCCAAAGAAGCACCCACACAGTGTGATGTGCCCCAGCAGCCGCTTTGACTGTGCC
 CCGACAAAGGCATCTCACAGGAGCAATGCGAGGCCCGCGGCTGCTGCTATGTCCAGCAGGGCAGGTGCT
 GAAGGAGCCGAGATAGGGCAGCCCTGGTGTTCCTCCCTCCAGCTACCCAAGCTACCGTCTAGAGAAC
 CTGAGCTCTACAGAGTCGGGGTACACAGCCACCCTGACCCGTACCAGCCCGACCTTCTCCAAAGGATG
 TGCTGACCTTACAGCTGGAGGTGCTGATGGAGACAGACAGCCGCCTCCACTTCAAGATCAAAGATCTG
 TAGTAAGCGCTACGAAGTCCCCGAGACCCACGTGTGCTGAGCCAGGCACCATCCCCACTTTACAGC
 GTGGAATTCAGAGGAACCCCTTGGAGTGATCGTTCGTAGGAAGCTTGGTGGCCGAGTGTGTGTAACA
 CAACCGTGGCCCCCTGTCTTCGCTGACCAGTTCCTGCAGCTGTCCACTTCCCTGCCCTCCAGACAT
 CACAGGCTGGGGGAACCTCAGCCACTCATGCTCAGCACCGACTGGGCTCGTATCACCTCTGGAAC
 CGGGACACACCACCTCGCAAGTACCAACCTCTACGGGTACATCCTTTCTACCTGGCACTGGAGGACG
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 CCTAACCTGGAGGTCAACGGGCGGGATCCTGGATGTGTATGTGTCTTAGGCCAGAGCCCAAGAGCGTT
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 GCGCTGGGCTACTCCTCGACCCCATTTGTCGCCAGTGTAGTGGAGAACATGACCAGGACACATCCCC
 GCTGGATGTGCAATGGAATGACCTGGACTACATGGACGCCCGAAGAGACTTACCTTCAACCAGGACAGC
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 AGCCACCAATTCCTCTCCACACTACAACCTCCACAACCTGTACGGCCTCACTGAAGCTATCGCCTCCA
 GCAGGGCCCTGGTCAAGACTCGGGGAACACGACCCCTTTGTGATCTCCCGCTCAACCTTCTCGGGCCACGG
 CCGGTACGCTGGTCACTGGACAGGGGATGTGCGGAGCTTTGGGAGCATCTTGCACTACTCTGTGCCAGAC
 ATCCTGCAGTTCAACCTGCTGGGCGTGCCCTGGTGGGGCGGACATCTGCGGCTTCATAGGAGACACGT
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 GAACAAGTTAGTGCCTGTGACCAAGGAGGGAGCTGAGCTACAACCTGAGGGAGGTGACCGTCTTGGGAGT
 GCCACAGCTCTACCCAGGTCCTTCCAACGGCATCCCTGTCTCCAATTTACCTACAGCCCTGACAACA
 AGAGCCTGGCCATCCCTGTCTACTGCTGATGGGAGAGCTGTTTCAAATCAGCTGGTCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG211293 representing NM_008064
 Red=Cloning site Green=Tags(s)

MNIRKPLCSNSVVGACTLISLTTAVILGHLMLRELMLLPQDLHESSSGLWKTYRPHHQEGYKGPLHIQE
 QTEQPKEAPTQCDVPPSSRFDCAPDKGISQEQCEARGCCYVPAGQVLKEPQIGQPWCFFPPSYPSYRLEN
 LSSTESGYTATL TRT SPTFFPKDVL TLQLEVL METDSRLHFKIKDPASKRYEVPLET PRVLSQAPSPLY S
 VEFSEEPFGVIVRRKLGGRVLLNTTVAPLFFADQFLQLSTSLPSQHITGLGEHLSPLMLSTDWARITLWN
 RDTPPSQGTNLYGSHPFYLALEDGGLAHGVFLLNSNAMDVILQSPAL TWRSTGGILDVYVFLGPEPKSV
 VQQYLDVVGYPFMPYWGLGFHLCRWGYSSAIVRQVVENMTRTHFPLDVQWNDLDYMDARRDFTFNQDS
 FADFPDMVRELHQGRRYMMIVDPAISSAGPAGSYRYPYDEGLRRGVFITNETGQPLIGKVVPGTTAFPDF
 TNPETLDWWQDMYSEFHAQVFPDGMWLDMNEPSNFVRGSQQGCPNNELENPPYVPGVVGILQAATICAS
 SHQFLSTHYNLHNL YGL TEAIASSRALVKTRGTRPFVISRSTFSGHGRYAGHWTDGVRSSWEHLAYSVPD
 ILQFNLLGVPLVGADICGFIGDTSEELCVRWTLGAFYPFMRNHNDLNSVPQEPYRFSETAQAMRKAFA
 LRYALLPYLYTLFHHRAHVRGDTVARPLFLEFPEDPSTWSVDRQLLWGPALLITPVLEPGKTEVTGYFPKG
 TWYNMQVVSVDLGTLPSPSSASSFRSAVQSKGQWL TLEAPLDTINVHLREGYI IPLQGPSTTTESRKQ
 PMALAVALTASGEADGELFWDDGESLAVLERGAYTLVTFSAKNNTIVNKLVRVTKEGAELQLREVTVLGV
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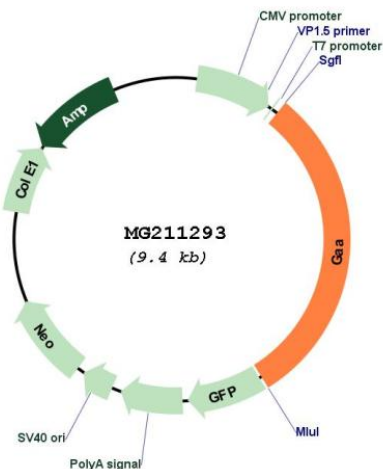
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_008064

ORF Size: 3753 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_008064.2](#)

RefSeq Size: 3504 bp

RefSeq ORF: 2862 bp

Locus ID: 14387

UniProt ID: [P70699](#)

Cytogenetics: 11 83.35 cM

Gene Summary: This gene encodes a lysosomal acid glucosidase that is involved in the degradation of glycogen. The encoded preproprotein undergoes proteolytic processing to generate a mature enzyme that cleaves alpha-1-4 and alpha-1-6 glycosidic bonds of glycogen, maltose and intermediate oligosaccharides within the lysosome. Mice lacking the encoded protein exhibit symptoms similar to human Pompe syndrome such as accumulation of glycogen in cardiac and skeletal muscle lysosomes resulting in reduced mobility and strength. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Nov 2015]