

Product datasheet for **RG200153**

GGA2 (NM_015044) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | GGA2 (NM_015044) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | GGA2 |
| Synonyms: | VEAR |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG200153 representing NM_015044
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCGGCGACCGCGGTGGCGGCGCTGTGGCGGAACCGAGTCGGCCAGGGTCCCCGGGCCCGCAG
 CGTCGCTGGAGCTGTGGCTGAACAAAGCCACAGACCCAAGCATGTCGGAACAGGATTGGTCAGCTATCCA
 GAATTTCTGTGAGCAGGTGAACACTGACCCCAATGGCCCCACACATGCGCCCTGGCTACTGGCCACAAG
 ATCCAGTCTCCGCAAGAGAAGGAAGCTCTTTATGCCTTAACGGTGTGGAGATGTGCATGAACCACTGTG
 GGGAGAAGTTCCACAGCGAGGTGGCCAAATTCGTTTCTGAACGAACTGATCAAAGTGTGTCCCCAAA
 GTACCTGGGGTCTGGGCCACAGGAAAAGTTAAGGAAGAGTCATTGAAATACTTTCAGTTGGACAGTC
 TGGTTTCCGGAAGACATCAAGATTCGAGACGCTTATCAGATGTGAAGAAAACAAGGAATTATAAAACAAG
 ACCCTAACTACCAGTGGATAAAATCTTACCCCCACCATCTCCCTGGCCCAAGAGCTCCATCTTTGATGC
 TGATGAAGAAAAGTCCAAGCTTCTGACAAGGCTTCTAAAGAGCAACCACCCGAGGACCTTCAGGCTGCA
 AACCGGTTAATCAAGAATTTGGTCAAGGAGGAACAAGAAAAATCGGAGAAGGTGTCCAAGAGGGTCAAGT
 CCGTGGAGGAAGTGCAGGCCATGTGAAGGTGCTGACAGGAGATGCTGAGCATGTACCGCAGGCCAGGGCA
 GGCCCCGCCCAGCAGGAGGCCCTGCAGGTGCTGTATGAGAGGTGTGAAAAGCTGCGGCCACGCTGTTT
 CGGTTGGCGAGTGACACCACTGATGACGATGATGCACTCGCGAAATTCAGGCAAAATGACCTCCTCA
 CCCAAGGAGTTCTGCTGTACAAACAGGTGATGGAGGGCCGGTCACTTTGGAACAGAGTGACCAGCTC
 ATTGGGAGACATCCCTGTCTCCAGATCTTTGAGAATCCAGCAGGCTGCATGAAGACCTGCCCTGATT
 GACTTGGAGTGGACAATGGACCTGCGCAGATGGGACTGTGGTCCATCTTTGCTTCATCAGGAAAAGAG
 CAGCCTTGGGAATCAGTGATGCTCCTGTTACAGGCATGGTTTCTGGTCAAGATGCTGTGAGGAAAAGAG
 GAATCCCTCCTCCAGCAGCTGCCAGGCGGTGGTTCAGAACCCTTCTGCAGACAGGAATTTGCTGGAC
 CTCTCTCACCACAGCCAGCTCCGTGCCCTCTGAATTATGTTTCCGAGAAAAGTGTCCCCAAGGAAGTGC
 CACCAGTACTAAGTCTCTCCAGTGGTCTGGGAGGCTGGCCGTTGGCTCCTTCCCATCTTCACA
 GAATACACCTCTGGCTCAAGTGTGTTGCTCCTTTGGAGTCTGTTAAGCCCAGCAGCCTGCCGCTCTCATT
 GTGATGACCGGAATGGATTGAGAATCTGCTCCACTTCTCCAGACGGGAGCCCTGGGACCCAGAGG
 TACAGGTGCTGCTTGGACATGATGAGCACGGCTCCCCAGCCTGTCTGGGATATCATGTTTCAAGTGGC
 TGTGCCAAAGTCAATGAGAGTGAAGCTGCAGCCGGCATCCAGCTCAAGCTTCTGCATTAGCTCCTTTG
 ATGCTCCAGCTGTGATATCTCAGATGCTGCTGCTTGACAATCCACACAAAGAACCTATCCGCTTACGGT
 ACAAGCTGACATTCAACCAAGGTGGACAGCCTTTCAGCGAAGTAGGAGAAGTGAAGACTTCCAGACCT
 GGCTGCTTGGGCGCAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG200153 representing NM_015044
 Red=Cloning site Green=Tags(s)

MAATAVAANAAGTESAQGPPGPAASLELWLNKATDPSMSEQDWSAIQNFCEQVNTDPNGPTHAPWLLAHK
 IQSPQEKEALYALTVLEMCNMHCGEKFHSEVAKFRFLNELIKVLSPKYLGSWATGKVKGRVIEILFSWTV
 WFPEDIKIRDAYQMLKKQGIKQDPKLPVDKILPPPSPWPKSSIFDADEEKSKLLTRLLKSNHPEDLQAA
 NRLIKNLVKEEQEKSEKSKRVSAVEEVRSHVKVLQEMLSMYRRPGQAPPDQEQALQVVYERCEKLRPTLF
 RLASDTDDDDALAEILQANDLLTQGVLLYKQVMEGRVTFGNRVTSSLGDIIPVSRVFNQNPAGCMKTCPLI
 DLEVNDGPAQMGTVVPSLLHQDLAALGISDAPVTGMVSGQNCCEEKRNPSSTLPGGGVQNPADRNLDD
 LLSPQPAPCLNYVSQKSPKEVPPGTKSSPGWSWEAGPLAPSPSSQNTPLAQVFPLESVKPSSLPPLI
 VYDRNGFRILLHFSQTGAPGHPEVQVLLTMMSTAPQPVDIMFQVAVPKSMRVKLQPASSKLPAPFSP
 MPPAVISQMLLLDNPHKEPIRLRYKLTFNQGGQPFSEVGEVKDFPDLAVLGAA

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_015044

ORF Size: 1839 bp

OTI Disclaimer: 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_015044.3](#), [NP_055859.1](#)

RefSeq Size: 5203 bp

RefSeq ORF: 1842 bp

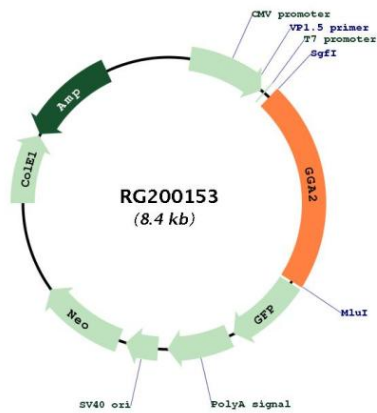
Locus ID: 23062

UniProt ID: [Q9UJY4](#)

Cytogenetics: 16p12.2
Domains: VHS, GAT, Alpha_adaptinC2
Protein Pathways: Lysosome
Gene Summary:

This gene encodes a member of the Golgi-localized, gamma adaptin ear-containing, ARF-binding (GGA) family. This family includes ubiquitous coat proteins that regulate the trafficking of proteins between the trans-Golgi network and the lysosome. These proteins share an amino-terminal VHS domain which mediates sorting of the mannose 6-phosphate receptors at the trans-Golgi network. They also contain a carboxy-terminal region with homology to the ear domain of gamma-adaptins. This family member may play a significant role in cargo molecules regulation and clathrin-coated vesicle assembly. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG200153