

Product datasheet for **RC200153**

GGA2 (NM_015044) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GGA2 (NM_015044) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GGA2
Synonyms:	VEAR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC200153 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGCGACCGCGGTGGCGCGGCTGTGGCGGAACCGAGTCGGCCAGGGTCCCCGGGCCCGGCAG
 CGTCGCTGGAGCTGTGGCTGAACAAAGCCACAGACCCAAGCATGTCGGAACAGGATTGGTCAGCTATCCA
 GAATTTCTGTGAGCAGGTGAACACTGACCCCAATGGCCCCACACATGCGCCCTGGCTACTGGCCACAAG
 ATCCAGCTCCGCAAGAGAAGGAAGCTCTTTATGCCTAACGGTCTGGAGATGTGCATGAACCACTGTG
 GGGAGAAGTTCCACAGCGAGGTGGCCAAATTCGTTTCTGAACGAACTGATCAAAGTGTGTCCCAAA
 GTACCTGGGGTCTGGGCCACAGGAAAAGTTAAGGAAGAGTCATTGAAATACTTTCAGTTGGACAGTC
 TGGTTTCCGGAAGACATCAAGATTCGAGACGCTTATCAGATGCTGAAGAAAACAAGGAATTATAAAACAAG
 ACCCTAACTACCAGTGGATAAAATCTTACCCCAACCATCTCCCTGGCCCAAGAGCTCCATCTTTGATGC
 TGATGAAGAAAAGTCCAAGCTTCTGACAAGGCTTCTAAGAGCAACCACCCGAGGACCTTCAGGCTGCA
 AACCGGTTAATCAAGAATTTGGTCAAGGAGGAACAAGAAAAATCGGAGAAGGTGTCCAAGAGGGTCAAGT
 CCGTGGAGGAAGTGCAGGCCATGTGAAGTGTCTGACAGGAGATGCTGAGCATGTACCGCAGGCCAGGGCA
 GGCCCCGCCCAGCAGGAGGCCCTGCAGGTCTGTATGAGAGGTGTGAAAAGCTGCGGCCACGCTGTTT
 CGGTTGGCGAGTGACACCACTGATGACGATGATGCACTCGCGGAAATTCAGGCAAAATGACCTCCTCA
 CCCAAGGAGTTCTGCTGTACAAACAGGTGATGGAGGGCCGGTCACTTTGGAACAGAGTGACCAGCTC
 ATTGGGAGACATCCCTGTCTCCAGATCTTTGAGAATCCAGCAGGCTGCATGAAGACCTGCCCTGATT
 GACTTGGAGTGGACAATGGACCTGCGCAGATGGGGACTGTGGTCCATCTTTGCTTCATCAGGAACTGG
 CAGCCTTGGGAATCAGTGATGCTCCTGTTACAGGCATGGTTTCTGGTCAAGATTGCTGTGAGGAAAAGAG
 GAATCCCTCCTCCAGCACGCTGCCAGGCGGTGGTTCAGAACCCTTCTGCAGACAGGAATTTGCTGGAC
 CTCTCTCACCACAGCCAGCTCCGTGCCCTCTGAATTATGTTTTCGAGAAAAGTGTCCCAAGGAAGTGC
 CACCAGTACTAAGTCTCTCCAGTGGTCTGGGAGGCTGGCCGTTGGCTCCTTCCCATCTTCACA
 GAATACACCTCTGGCTCAAGTGTGTCCCTTTGGAGTCTGTTAAGCCCAGCAGCCTGCCGCTCTCATT
 GTGATGACCGGAATGGATTGAGAATCTGCTCCACTTCTCCAGACGGGAGCCCTGGGACCCAGAGG
 TACAGGTGCTGCTTTGACCATGATGAGCACGGCTCCCCAGCCTGTCTGGGATATCATGTTTCAAGTGGC
 TGTGCCAAAGTCAATGAGAGTGAAGCTGCAGCCGGCATCCAGCTCAAGCTTCTGCATTACGCTCTTTG
 ATGCCCTCAGCTGTGATATCTCAGATGCTGCTGCTTGACAATCCACACAAAGAACCTATCCGCTTACGGT
 ACAAGCTGACATTCAACCAAGGTGGACAGCCTTTCAGCGAAGTAGGAGAAGTGAAGACTTCCAGACCT
 GGCTGCTTGGGCGCAGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200153 protein sequence
 Red=Cloning site Green=Tags(s)

MAATAVAANAAGTESAQGPPGPAASLELWLNKATDPSMSEQDWSAIQNFCEQVNTDPNGPTHAPWLLAHK
 IQSPQEKEALYALTVLEMCNMHCGEKFHSEVAKFRFLNELIKVLSPKYLGSWATGKVKGRVIEILFSWTV
 WFPEDIKIRDAYQMLKKQGIKQDPKLPVDKILPPSPWPKSSIFDADEEKSKLLTRLLKSNHPEDLQAA
 NRLIKNLVKEEQEKSEKSKRVSAVEEVRSHVKVLQEMLSMYRRPGQAPPDQALQVVYERCEKLRPTLF
 RLASDTTDDDDALAEILQANDLLTQGVLLYKQVMEGRVTFGNRVTSSLGDIPVSRVFNQNPAGCMKTCPLI
 DLEVNDGPAQMGTVVPSLLHQDLAALGISDAPVTGMVSGQNCCEEKRNPSSTLPGGGVQNPASDRNLLD
 LLSPQPAPCPNLYYSQKSVKPEVPPGKSSPGWSWEAGPLAPSPSSQNTPLAQVFPLESVKPSSLPPLI
 VYDRNGFRILLHFSQTGAPGHPEVQVLLLTMSTAPQPVDIMFQVAVPKSMRVKLQPASSSKLPAFSP
 MPFAVISQMLLLDNPHKEPIRLRYKLTFNQGGQPFSEVGEVKDFPDLAVLGAA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6217_c11.zip

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

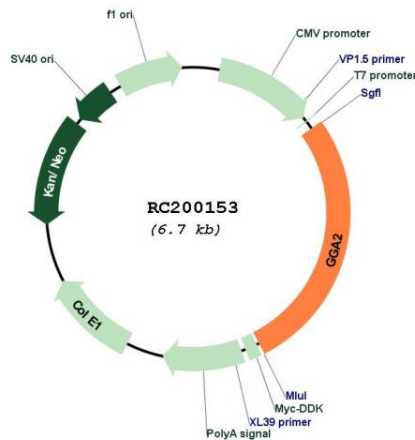
RefSeq: [NM_015044.4](#)

RefSeq Size: 5973 bp

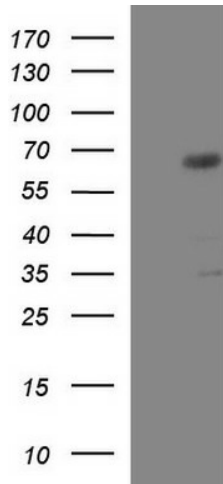
RefSeq ORF: 1842 bp
Locus ID: 23062
UniProt ID: [Q9UJY4](#)
Cytogenetics: 16p12.2
Domains: VHS, GAT, Alpha_adaptinC2
Protein Pathways: Lysosome
MW: 67.2 kDa

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]

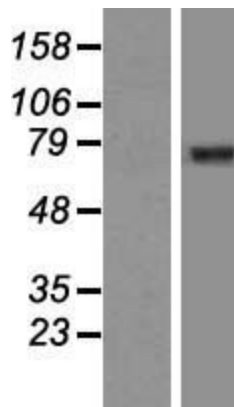
Product images:



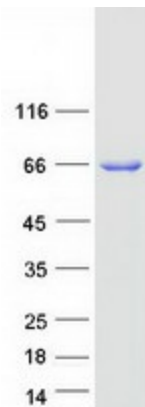
Circular map for RC200153



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GGA2 (Cat# RC200153, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GGA2 (Cat# [TA507282]). Positive lysates [LY414846] (100ug) and [LC414846] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414846]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200153 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GGA2 protein (Cat# [TP300153]). The protein was produced from HEK293T cells transfected with GGA2 cDNA clone (Cat# RC200153) using MegaTran 2.0 (Cat# [TT210002]).