

## Product datasheet for **RC218899**

### alpha Glucosidase II (GANAB) (NM\_198334) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Glucosidase II (GANAB) (NM_198334) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha Glucosidase II
Synonyms:	G2AN; GIIA; GLUII; PKD3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC218899 representing NM\_198334  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGCGGTAGCGGCAGTGGCGGCGGTAGGAGGCGGTCTTGGCGTCTTTGGTACTGGCTTTTTTAG  
 GGGTCTGCCTGGGATTACCTTGCTGTGGATAGAAGCAACTTTAAGACCTGTGAAGAGAGTTCTTTCTG  
 CAAGCGACAGAGAAGCATACGGCCAGGCCCTCTCCATACCGAGCCTTGCTGGACTCTACAGCTTGGT  
 CCTGATCCCTCACGGTCCATCTGATCCATGAGGTACCAAGGTGTTGCTGGTGCTAGAGCTTACAGGGC  
 TTCAAAGAACATGACTCGGTTCAAGATTGATGAGCTGGAGCCTCGGCGACCCCGATACCGTGTACCAGA  
 TGTTTTGGTGGCTGATCCACCAATAGCCCGGCTTTCTGTCTCTGGTCGTGATGAGAACAGTGTGGAGTTA  
 ACCATGGCTGAGGGACCTACAAGATCATCTTGACAGCACGGCATTCCGCCTTGACCTACTAGAGGACC  
 GAAGTCTTTTGTAGTGTCAATGCCCGAGGACTCTGGAGTTTGGAGCATCAGAGGGCCCTAGGGTCTC  
 GCAAGGATCAAAGACCCAGCTGAGGGCGATGGGGCCAGCCTGAGGAAACACCCAGGGATGGCGACAAG  
 CCAGAGGAGACTCAGGGGAAGGCAGAGAAAGATGAGCCAGGAGCCTGGGAGGAGACATTCAAAACACTCA  
 CTGACAGCAAGCCGATGGCCCCATGTCTGTGGGTTTGGACTTCTCTGCCAGGATGGAGCATGTCTA  
 TGGGATCCCTGAGCATGCAGACAACCTGAGGCTGAAGTCACTGAGGGTGGGAGCCATATCGCCTCTAC  
 AATTTGGATGTGTTCCAGTATGAGCTGTACAACCAATGGCCTTGATGGGTCTGTGCCTGTGCTCCTGG  
 CACACAACCTCATCGCGACTTGGGCATCTTGGCTCAATGTGTCAGAGACCTGGGTTGATATATCTTC  
 CAACACTGCCGGGAAGACCCTGTTGGGAAGATGATGGACTACCTGCAGGGCTCTGGGAGACCCACAG  
 ACAGATGTTGCTGGATGTCAGAGACTGGCATCATTGACGCTTCTCTGCTGCTGGGGCCCTCCATCTCTG  
 ATGTTTTCCGGCAATATGCTAGTCTCACAGGAACCCAGGCGTTGCCCCACTCTTCTCCCTCGGCTACCA  
 CCAGAGCCGTTGGAACCTACCGGGACGAGGCTGATGTGCTGGAAGTGGATCAGGGCTTTGATGATCACAAC  
 CTGCCCTGTGATGTCATCTGGCTAGACATTGAACATGCTGATGGCAAGCGGATTTTACCTGGGACCCCA  
 GTCGCTTCCCTCAGCCCCGACCATGCTTGAGCGCTTGGCTTCTAAGAGCGGAAGCTGGTGGCCATCGT  
 AGACCCCCACATCAAGGTGGACTCCGGCTACCGAGTTCACGAGGAGCTGCGGAACCTGGGCTGTATGTT  
 AAAACCCGGGATGGCTCTGACTATGAGGGCTGGTGTGCGCAGGCTCAGTGGTTACCCTGACTTCACTA  
 ATCCCACGATGAGGGCTGGTGGCTAACATGTTCACTATGACAATTATGAGGGCTCAGCTCCCAACCT  
 CTTTGTCTGGAATGACATGAACGAACCATCTGTGTTCAATGGTCCTGAGGTACCATGCTCAAGGATGCC  
 CAGCATTATGGGGCTGGGAGCACCGGGATGTGCATAACATCTATGGCCTTATGTGCATGCGGACTG  
 CTGATGGGCTGAGACAGCGCTCTGGGGCATGGAACGCCCTTTGTCTGGCCAGGGCCTTCTTCGCTGG  
 CTCCCAGCGCTTTGGAGCCGTGTGGACAGGGGACAACACTGCCGAGTGGGACCATTTGAAGATCTCTATT  
 CCTATGTGCTCAGCTTGGGGCTGGTGGGACTTCTCTTCTGTGGGGCGGATGTGGGTGGCTTCTTCAAAA  
 ACCCAGAGCCAGAGCTGCTTGTGCGCTGGTACCAGATGGGTGCTTACCAGCCATTCTCCGGGCACATGC  
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 TTGGGCCAGCGATATTCTTTGCTGCCCTTCTGGTACACCTCTTATATCAGGCCCATCGGGAAGGCATTC  
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 GCTTGGGATGCGTTGCTGGTTCACCCTGTATCAGACTTGGAGCCCATGGTGTCCAGTCTATCTGCCT  
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 CTGTAACCTAAGCAGTATCCCTGTGTTCCAGCGTGGAGGGACAATCGTGCCTCGATGGATGCGAGTGCG  
 GCGGTCTTCAAGATGATGAAGGATGACCCATCACTCTCTTTGTTGCACTTAGCCCTCAGGGTACAGCT  
 CAAGGAGAGCTCTTTCTGGATGATGGGCACACGTTCAACTATCAGACTCGCCAAGAGTTCCTGCTGCGTC  
 GATTCTCATTCTGGCAACACCCTTGTCTCCAGCTCAGCAGACCCTGAAGGACACTTTGAGACACCAAT  
 CTGGATTGAGCGGTGGTATAATAGGGCTGGAAAGCCAGCAGCTGTGGTACTCCAGACAAAAGGATCT  
 CCAGAAAGCCGCTGTCTTCCAGCATGACCCTGAGACCTCTGTGTTGGTCTGCCAAGCCTGGCATCA  
 ATGTGGCATCTGATTGGAGTATTCACCTGCGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218899 representing NM\_198334  
 Red=Cloning site Green=Tags(s)

MAVAVAVAARRRRSWASLVLAFLGVCLGITLAVDRSNFKTCEESSFCRQR SIRPGLSPYRALDLSLQLG  
 PDSLTVHLIHEVTKVLLVLELQGLQKNMTRFRIDELEPRRPRYRVPDVLVADPPIARLSVSGRDENSVEL  
 TMAEGPYKIILTARPFRLDLEDRSLLLSVNARGLLEFEHQRAPRVSQGSKDPAEGDGAQPEETPRDGDK  
 PEETQGKAEKDEPGAWREETFKTHSDSKPYGPMVGLDFSLPGMEHVYGIPEHADNLRKLVTEGGEPYRLY  
 NLDVVFQYELYNPMALYGSVPVLLAHNPHRDLGIFWLNAEETWVDISSNTAGKTLFGKMMMDYLQGSGETPQ  
 TDVRWMSSETGIDVFLLLGPSISDVFRQYASLTGTQALPPLFSLGYHQSRWNYRDEADVLEVDQGFDDHN  
 LPCDVIWLDIEHADGKRYFTWDPSPRFPQRTMLERLASKRRKLVAVDPHIKVDVSGYRVHEELRNLGLYV  
 KTRDGSDEYEGWCWPGSAGYPDFNTPTMRAWANMF SYDNYEGSAPNLFVWDMNEPSVFNNGPEVTMLKDA  
 QHYGGWEHRDVHNIYGLYVHMATADGLRQRSGMERPFVLARAFFAGSQRFGAVWTGDNTAEWDHLKISI  
 PMCLSLGLVGLSFCGADVGGFFKNPEPELLVRWYQMGAYQPF FRAHAHLDTGRREPWLLPSQHNDIIRDA  
 LGQRYSLLPFWYLLYQAHREGIPVMRPLWVQYPQDVTTFNIDDQYLLGDALLVHPVSDSGAHGVQVYLP  
 GQGEVWYDIQSYQKHHGPQTL YLPVTLSSIPVFQRGGTIVPRWMRVRRSSECMKDDPITL FVALSPQGT  
 QGELFLDDGHTFNYQTRQEFLLRRFSFGNTLVSSADPEGHFETPIWIERVVIIGAGKPAAVVLQTKGS  
 PESRSLSFQHPETSVLVLRKPGINVASDWSIHLR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6595\\_a02.zip](https://cdn.origene.com/chromatograms/mk6595_a02.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



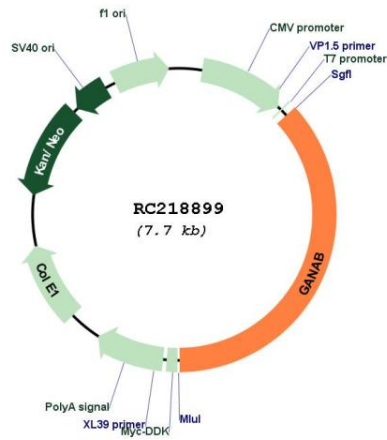
\* The last codon before the Stop codon of the ORF

ACCN: NM\_198334

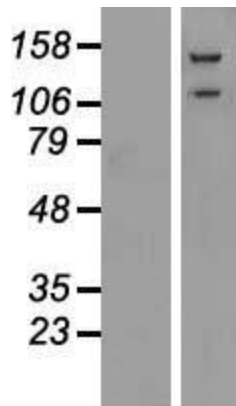
ORF Size: 2832 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_198334.3</a>
<b>RefSeq Size:</b>	3887 bp
<b>RefSeq ORF:</b>	2835 bp
<b>Locus ID:</b>	23193
<b>UniProt ID:</b>	<a href="#">Q14697</a>
<b>Cytogenetics:</b>	11q12.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, N-Glycan biosynthesis
<b>MW:</b>	106.7 kDa
<b>Gene Summary:</b>	This gene encodes the alpha subunit of glucosidase II and a member of the glycosyl hydrolase 31 family of proteins. The heterodimeric enzyme glucosidase II plays a role in protein folding and quality control by cleaving glucose residues from immature glycoproteins in the endoplasmic reticulum. Expression of the encoded protein is elevated in lung tumor tissue and in response to UV irradiation. Mutations in this gene cause autosomal-dominant polycystic kidney and liver disease. [provided by RefSeq, Jul 2016]

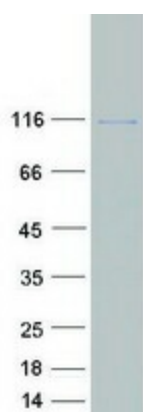
Product images:



Circular map for RC218899



Western blot validation of overexpression lysate (Cat# [LY405023]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218899 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GANAB protein (Cat# [TP318899]). The protein was produced from HEK293T cells transfected with GANAB cDNA clone (Cat# RC218899) using MegaTran 2.0 (Cat# [TT210002]).