

Product datasheet for **RC239684**

alpha Glucosidase II (GANAB) (NM_001278192) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Glucosidase II (GANAB) (NM_001278192) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GANAB
Synonyms:	G2AN; GIIA; GLUII; PKD3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>RC239684 representing NM_001278192
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGCGGTAGCGGCAGTGGCGGCGGTAGGAGGCGGCTTTCTGTCTCTGGTCGTGATGAGAACAGTG
TGGAGTTAACCATGGCTGAGGGACCCTACAAGATCATCTTGACAGCACGGCCATTCGCCTTGACCTACT
AGAGGACCGAAGTCTTTTGTAGTGCAATGCCCGAGGACTCTTGGAGTTTGAGCATCAGAGGGCCCT
AGGGTCTCTTTCTCGGATAAGGTTAATCTCACGCTTGGTAGCATATGGGATAAGATCAAGAACCTTTTCT
CTAGGCAAGGATCAAAAGACCCAGCTGAGGGCGATGGGGCCAGCCTGAGGAAACACCCAGGGATGGCGA
CAAGCCAGAGGAGACTCAGGGGAAGGCAGAGAAAGATGAGCCAGGAGCCTGGGAGGAGACATTCAAACCT
CACTCTGACAGCAAGCCGTATGGCCCCATGTCTGTGGGTTGGACTTCTCTGCCAGGCATGGAGCATG
TCTATGGGATCCCTGAGCATGCAGACAACCTGAGGCTGAAGGTCAGTGGGTGGGAGCCATATCGCCT
CTACAATTTGGATGTGTTCCAGTATGAGCTGTACAACCAATGGCCTTGTATGGGCTGTGCCTGTGCTC
CTGGCACACAACCTCATCGCGACTTGGGCATCTTCTGGCTCAATGCTGCAGAGACTGGGTTGATATAT
CTTCCAACACTGCCGGGAAGACCCTGTTGGGAAGATGATGGACTACCTGCAGGGCTCTGGGGAGACCCC
ACAGACAGATGTTGCTGGATGTCAGAGACTGGCATATTGACGTCTTCTGCTGCTGGGGCCCTCCATC
TCTGATGTTTTCCGGCAATATGCTAGTCTCACAGGAACCCAGGCGTTGCCCCACTCTTCTCCCTCGGCT
ACCACCAGAGCCGTTGGAACACCGGGACGAGGCTGATGTGCTGGAAGTGGATCAGGGCTTTGATGATCA
CAACCTGCCCTGTGATGTATCTGGCTAGACATTGAACATGCTGATGGCAAGCGGATTTACCTGGGAC
CCCAGTCGCTCCCTCAGCCCCGACCATGCTTGAGCGCTTGGCTTCTAAGAGCGGAAGCTGGTGGCCA
TCGTAGACCCCCACATCAAGGTGGACTCCGGCTACCGAGTTCACGAGGAGCTGCGGAACCTTTGGTGA
TGTTAAAACCCGGGATGGCTCTGACTATGAGGGCTGGTGTGCTGGCCAGGCTCAGTGGTTACCCTGACTTC
ACTAATCCACGATGAGGGCTGGTGGGCTAACATGTTCAAGTATGACAATTATGAGGGCTCAGCTCCCA
ACCTCTTTGTCTGGAATGACATGAACGAACCATCTGTGTTCAATGGTCTGAGGTCACCATGCTCAAGGA
TGCCCAGCATTATGGGGCTGGGAGCACCAGGATGTGCATAACATCTATGGCCTTTATGTGCACATGGCG
ACTGCTGATGGGCTGAGACAGCGCTCTGGGGCATGGAACGCCCTTTGCTGCTGGCCAGGGCCTTCTTCG
CTGGCTCCAGCGCTTTGGAGCCGTGTGGACAGGGGACAACACTGCCAGTGGGACCATTGAAGATCTC
TATTCCTATGTGCTCAGCTTGGGGCTGGTGGGACTTTCCTTCTGTGGGCGGATGTGGGTGGCTTCTTC
AAAACCCAGAGCCAGAGCTGCTTGTGCGCTGGTACCAGATGGGTGCTTACCAGCATTCTCCGGGCAC
ATGCCACTTGGACACTGGGCGACGAGACCATGGCTGTTACCATCTCAGCACAATGATATAATCCGAGA
TGCCCTGGGCCAGCGATATTCTTTGCTGCCCTTCTGTTACACCCTCTTATATCAGGCCATCGGGGAAGGC
ATTCCTGTGATGAGGCCCTGTGGGTGACGTACCTCAGGATGTGACTACCTTCAATATAGATGATCAGT
ACTTGGCTGGGGATGCGTTGCTGGTTCACCCTGTATCAGACTCTGGAGCCATGGTGTCCAGGTCTATCT
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CTGCCTGTAACCTAAGCAGTATCCCTGTGTTCCAGCGTGGAGGGACAATCGTGCCTCGATGGATGCGAG
TGCGGCGGTCTTCAGAAATGATGAAGGATGACCCATCACTCTCTTTGTGCACTTAGCCCTCAGGGTAC
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CGTCGATTCTCATTCTGGAACACCCTTGTCTCCAGCTCAGCAGACCCTGAAGGACACTTTGAGACAC
CAATCTGGATTGAGCGGGTGGTGAATAGGGGCTGAAAAGCCAGCAGCTGTGGTACTCCAGACAAAAGG
ATCTCCAGAAAAGCCGCTGTCCTTCCAGCATGACCCTGAGACCTCTGTGTTGGTCTGCGCAAGCCTGGC
ATCAATGTGGCATCTGATTGGAGTATTCACCTGCGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239684 representing NM_001278192
Red=Cloning site Green=Tags(s)

MAVAAVAARRRRLSVSGRDENSVELTMAEGPYKIILTARPFRLDLEDRSLLL SVNARGLLEFEHQRAP
RVSFSDKVNLTLSGIWDKIKNLF SRQGSKDP AEGDGAQPEETPRDGDKPEETQGKAEKDEPGAWEEFTFKT
HSDSKPYGPM SVGLDFSLPGMEHVYGIPEHADNLR LKVTEGGEPYRLYNLDV FQYELYNPMALYGSVPVL
LAHNPHRDLGIFWL NAAETWVDISSNTAGKTLFGKMDYLQGSGETPQTDV RWMSETGIIDV FLLLGP SI
SDVFRQYASLTGTQALPPLFSLGYHQSRWNYRDEADVLEVDQGFDDHNLPCDVIWLDIEHADGKRYFTWD
PSRFPQPRTMLERLASKRRKLV AIVDPHIKVDSGYRVHEELRN LGLYVKTRDGS DYEGWCWPGSAGYPDF
TNPTMRAWWANMFSYDNYEGSAPNLFVWNDMNEPSVFN GPEVTMLKDAQHYGGWEHRDVHNIYGLYVHMA
TADGLRQRSGGMERPFV LARAFFAGSQRFGAVWTGDNTAEWDHLKISIPMCLSLGLVGLSFCGADVGGFF
KNPEPELLVRWYQMGAYQPFFRAHAHLDTGRREPWLLPSQHNDIIRDALGQRYSLLPFWYTL LYQAHREG
IPVMRPLWVQYPQDVTTFNIDDQYLLGDALLVHPVSDSGAHGVQVYLPQGGEVWYDIQSYQKHHGPQTLY
LPVTLSSIPVFQRGGTIVPRWMRVRSSECMKDDPITL FVALSPQGT AQGELFLDDGHTFNYQTRQEFLL
RRFSFSGNTLVSSADPEGHFETPIWIERVVIIGAGKPAAVVLQTKGSPESRLSFQHPETSVLVLRKPG
INVASDWSIHLR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul

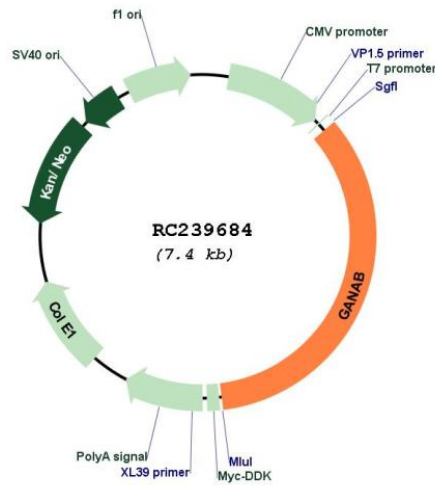
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001278192
ORF Size:	2556 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:	<ol style="list-style-type: none">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_001278192.2
RefSeq Size:	3684 bp
RefSeq ORF:	2559 bp
Locus ID:	23193
UniProt ID:	Q14697
Cytogenetics:	11q12.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, N-Glycan biosynthesis
MW:	97 kDa
Gene Summary:	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]