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Product datasheet for RC211035

GBA3 (NM_020973) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GBA3 (NM_020973) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GBA3
Synonyms:	CBG; CBGL1; GLUC; KLRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC211035 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTTTCCCTGCAGGATTTGGATGGGCGGCAGCCACTGCAGCTTATCAAGTAGAAGGAGGCTGGGATG
CAGATGGAAAAGGCCCTTGTGTCTGGGACACATTTACTCATCAGGGAGGAGAGAGAGTTTTCAAGAACCA
GACTGGCGATGTAGCTTGTGGCAGCTACACTCTGTGGGAGGAAGATTTGAAATGTATCAAACAGCTTGGA
TTGACTCATTACCGCTTCTCTCTTTCCTGGTCACGTCTGTTACCTGATGGGACGACAGGTTTCATCAACC
AGAAAGGAATTGATTATTACAACAAGATCATCGATGATTTGTTAAAAAATGGGGTTACTCCCATTGTGAC
CCTCTACCACTTTGATTTGCCTCAGACTTTAGAAGACCAAGGAGGTTGGTTGTCAGAGGCAATCATTGAA
TCCTTTGACAAATATGCTCAGTTTTGCTTCAGTACCTTTGGGGATCGTGTCAAGCAGTGGATCACCATAA
ATGAAGCTAATGTTCTTTCTGTGATGTCATATGACTTAGGTATGTTTCCTCCGGGTATCCCTCACTTTGG
GACTGGAGGTTATCAGGCAGCTCATAATTTGATTAAGGCTCATGCCAGATCCTGGCACAGCTATGATTCC
TTATTTCGAAAAAAGCAGAAAGGTATGGTGTCTCTATCACTTTTTGCGGTCTGGTTGGAACCAGCAGATC
CCAACTCAGTGTCTGACCAGGAAGCTGCTAAAAGAGCCATCACTTTCCATCTGGATTTATTTGCTAAACC
CATATTCATCGATGGTGATTATCCTGAAGTTGTCAAGTCTCAGATTGCCTCCATGAGTCAAAAGCAAGGC
TATCCATCATCGAGGCTTCCAGAATTCACTGAAGAAGAGAAGAAAATGATCAAAGGCACTGCTGATTTTT
TTGCTGTGCAATATTATACAACTCGCTTAATCAAGTACCAGGAGAACAAGAAAGGAGAACTAGGTATTCT
CCAGGATGCGGAAATTGAATTTTTTCCAGATCCATCTTGGAAAAATGTGGATTGGATCTACGTGGTACCA
TGGGGAGTATGTAAACTACTGAAATATATTAAGGATACATATAATAACCCTGTAATTTACATCACTGAGA
ATGGGTTTCCCCAGAGTGACCCAGCGCCTCTTGATGACACTCAACGCTGGGAGTATTTCAGACAAACATT
TCAGGAACTGTTCAAAGCTATCCAACTTGATAAAGTCAATCTTCAAGTATATTGTGCATGGTCTCTTCTG
GATAACTTTGAGTGGAACCAGGGATACAGCAGCCGGTTTGGTCTCTTCCACGTTGATTTTGAAGACCCAG
CTAGACCCCGAGTCCCTTACACATCGGCCAAGGAATATGCCAAGATCATCCGAAACAATGGCCTTGAAGC
ACATCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211035 protein sequence
Red=Cloning site Green=Tags(s)

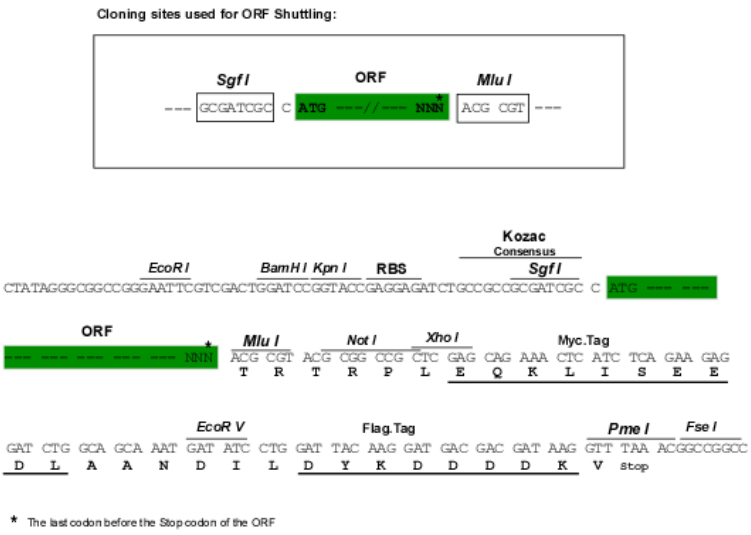
MAFPAGFGWAAATAAYQVEGGWDADGKGPCVWDTFTHQGGERVFKNQTGDVACGSYTLWEEDLKCIKQLG
LTHYRFSLSWSRLLPDGTTGFINQKGIDYYNKIIDDLLKNGVTPIVTLYHFDLPQTLEDQGGWLSEAIIE
SFDKYAQFCFSTFGDRVKQWITINEANVLSVMSYDLGMFPPGIPHFGTGGYQAAHNLIKAHARSWHSYDS
LFRKKQKGMVSLSLFAVWLEPADPNSVSDQEAAKRAITFHLDLFAKPIFIDGDYPEVVKSQIASMSQKQG
YPSSRLPEFTEEEKKMIKGTADFFAVQYYTTRLIKYQENKKGELGILQDAEIEFFPDPSWKNVDWIYVVP
WGVCKLLKYIKDTYNNPVIYITENGFPQSDPAPLDDTQRWEYFRQTFQELFKAIQLDKVNLQVYCAWSLL
DNFEWNQGYSSRFGLFHVDFEDPARPRVPYTSAKEYAKIIRNNGLEAHL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6130_b03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020973

ORF Size: 1407 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

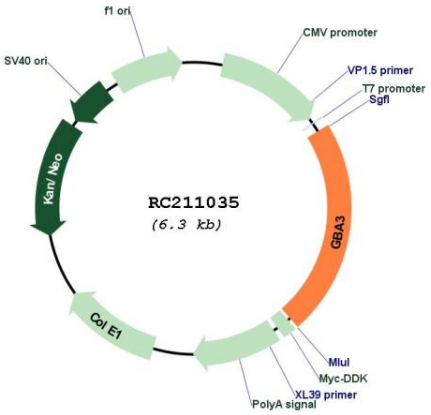
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

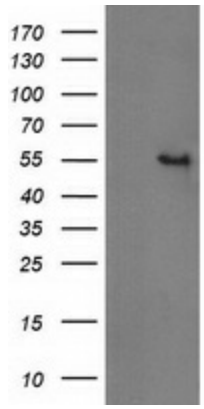
Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_020973.4
RefSeq Size:	2189 bp
RefSeq ORF:	1410 bp
Locus ID:	57733
UniProt ID:	Q9H227
Cytogenetics:	4p15.2
Protein Pathways:	Cyanoamino acid metabolism, Starch and sucrose metabolism
MW:	53.7 kDa
Gene Summary:	The protein encoded by this gene is an enzyme that can hydrolyze several types of glycosides. This gene is a polymorphic pseudogene, with the most common allele being the functional allele that encodes the full-length protein. Some individuals, as represented by the reference genome allele, contain a single nucleotide polymorphism that results in a premature stop codon in the coding region, and therefore this allele is pseudogenic due to the failure to produce a functional full-length protein. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Mar 2013]

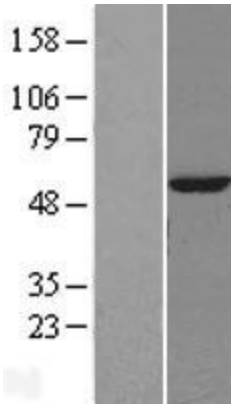
Product images:



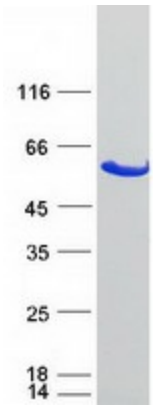
Circular map for RC211035



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GBA3 (Cat# RC211035, 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-GBA3(Cat# [TA502602]). Positive lysates [LY402815] (100ug) and [LC402815] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402815]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211035 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GBA3 protein (Cat# [TP311035]). The protein was produced from HEK293T cells transfected with GBA3 cDNA clone (Cat# RC211035) using MegaTran 2.0 (Cat# [TT210002]).