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Product datasheet for RC201629

Beclin 1 (BECN1) (NM_003766) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Beclin 1 (BECN1) (NM_003766) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Beclin 1
Synonyms:	ATG6; beclin1; VPS30
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201629 representing NM_003766
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAGGGTCTAAGACGTCCAACAACAGCACCATGCAGGTGAGCTTCGTGTGCCAGCGCTGCAGCCAGC
CCCTGAAACTGGACACGAGTTTCAAGATCCTGGACCGTGTCACCATCCAGGAACTCACAGCTCCATTACT
TACCACAGCCCAGGCGAAACCAGGAGAGACCCAGGAGGAAGAGACTAACTCAGGAGAGGAGCCATTTATT
GAAACTCCTCGCCAGGATGGTGTCTCTCGCAGATTCATCCCCCCAGCCAGGATGATGTCCACAGAAAGTG
CCAACAGCTTCACTCTGATTGGGGAGGCATCTGATGGCGGCACCATGGAGAACCTCAGCCGAAGACTGAA
GGTCACTGGGGACCTTTTTGACATCATGTCGGGCCAGACAGATGTGGATCACCCACTCTGTGAGGAATGC
ACAGATACTCTTTTAGACCAGCTGGACACTCAGCTCAACGTCACTGAAAATGAGTGTCAGAACTACAAAC
GCTGTTTGGAGATCTTAGAGCAAATGAATGAGGATGACAGTGAACAGTTACAGATGGAGCTAAAGGAGCT
GGCACTAGAGGAGGAGAGGCTGATCCAGGAGCTGGAAGACGTGGAAAAGAACCGCAAGATAGTGGCAGAA
AATCTCGAGAAGGTCCAGGCTGAGGCTGAGAGACTGGATCAGGAGGAAGCTCAGTATCAGAGAGAATACA
GTGAATTTAAACGACAGCAGCTGGAGCTGGATGATGAGCTGAAGAGTGTTGAAAACCAGATGCGTTATGC
CCAGACGCAGCTGGATAAGCTGAAGAAAACCAACGTCTTTAATGCAACCTTCCACATCTGGCACAGTGGA
CAGTTTGGCACAATCAATAACTTCAGGCTGGGTCGCCTGCCCAGTGTTCCCGTGGAATGGAATGAGATTA
ATGCTGCTTGGGGCCAGACTGTGTTGCTGCTCCATGCTCTGGCCAATAAGATGGGTCTGAAATTTCAGAG
ATACCGACTTGTTCCTTACGGAAACCATTCATATCTGGAGTCTCTGACAGACAAATCTAAGGAGCTGCCG
TTATACTGTTCTGGGGGGTTGCGGTTTTTCTGGGACAACAAGTTTGACCATGCAATGGTGGCTTTCCTGG
ACTGTGTGCAGCAGTTCAAAGAAGAGGTTGAGAAAGGCGAGACACGTTTTTGTCTTCCCTACAGGATGGA
TGTGGAGAAAGGCAAGATTGAAGACACAGGAGGCAGTGGCGGCTCCTATTCCATCAAAACCCAGTTTAAC
TCTGAGGAGCAGTGGACAAAAGCTCTCAAGTTCATGCTGACGAATCTTAAGTGGGGTCTTGCTTGGGTGT
CCTCACAATTTTATAACAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201629 representing NM_003766
Red=Cloning site Green=Tags(s)

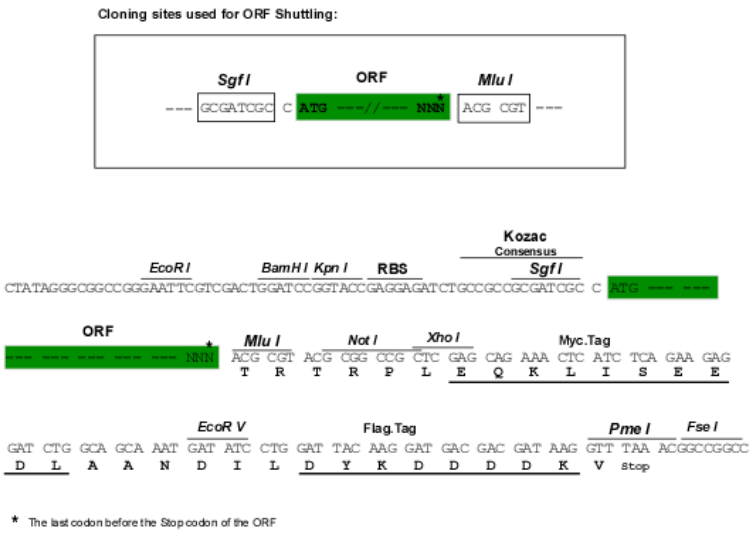
MEGSKTSNNSTMQVSFVCQRCSQPLKLDTSFKILDRVTIQELTAPLLTTAQAKPGETQEEETNSGEEPFI
ETPRQDGVSRRFIPPARMMSTESANSFTLIGEASDGGTMENLSRRLKVTGDLFDIMSGQTDVDHPLCEEC
TDTLLDQLDTQLNVTENECQNYKRCLEILEQMNEDDSEQLQMELKELALEEERLIQELEDVEKNRKIVAE
NLEKVQAEAERLDQEEAQYQREYSEFKRQQLELDDELKSVENQMRYAQTQLDKLKKTNVFNATFHIWHSG
QFGTINNFRLGRLPSVPVEWNEINAAWGQTVLLLHALANKMGLKFQRYRLVPYGNHSYLESLTDKSKELP
LYCSGGLRFFWDNKFDHAMVAFLDCVQQFKEEVEKGETRFCLPYRMDVEKGKIEDTGGSGGSYSIKTQFN
SEEQWTKALKFMLTNLKWGLAWVSSQFYNK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2569_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003766

ORF Size: 1350 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

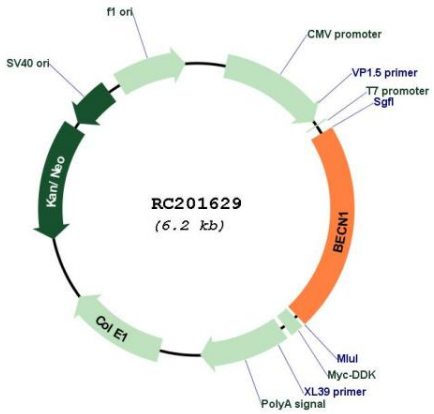
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

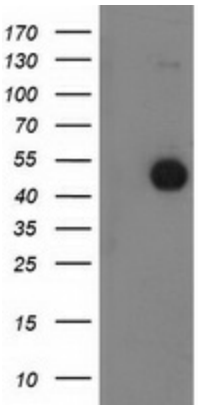
Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_003766.4
RefSeq Size:	2144 bp
RefSeq ORF:	1353 bp
Locus ID:	8678
UniProt ID:	Q14457
Cytogenetics:	17q21.31
Domains:	APG6
Protein Families:	Druggable Genome
Protein Pathways:	Regulation of autophagy
MW:	51.7 kDa
Gene Summary:	This gene encodes a protein that regulates autophagy, a catabolic process of degradation induced by starvation. The encoded protein is a component of the phosphatidylinositol-3-kinase (PI3K) complex which mediates vesicle-trafficking processes. This protein is thought to play a role in multiple cellular processes, including tumorigenesis, neurodegeneration and apoptosis. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

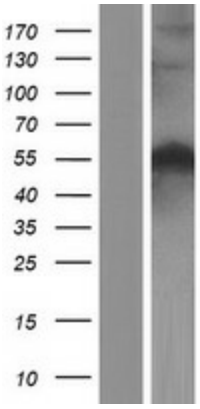
Product images:



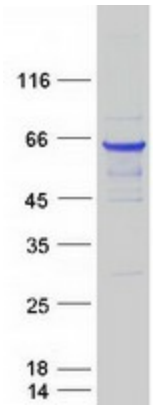
Circular map for RC201629



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BECN1 (Cat# RC201629, 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-BECN1(Cat# [TA502643]). Positive lysates [LY401239] (100ug) and [LC401239] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401239]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201629 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BECN1 protein (Cat# [TP301629]). The protein was produced from HEK293T cells transfected with BECN1 cDNA clone (Cat# RC201629) using MegaTran 2.0 (Cat# [TT210002]).