

## Product datasheet for RC221013

### BOC (NM\_033254) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	BOC (NM_033254) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BOC
Synonyms:	CDON2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221013 representing NM_033254 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGCGTGGGACGATGACGGCGTGGAGAGGAATGAGGCCTGAGGTCACTGGCTTGCCTCCTCTAG  
CCACAGCAGGCTGCTTTGCTGACTTGAACGAGGTCCCTCAGGTCACCGTCCAGCCTGCGTCCACCGTCCA  
GAAGCCCGGAGGCACTGTGATCTTGGGCTGCGTGGTGAACCTCAAGGATGAATGTAACCTGGCGCCTG  
AATGGAAGGAGCTGAATGGCTCGGATGATGCTCTGGGTGTCCTCATCACCCACGGGACCCTCGTCATCA  
CTGCCCTTAACAACCACACTGTGGGACGGTACCAGTGTGTGGCCGGATGCCTGCGGGGGCTGTGGCCAG  
CGTGCCAGCCACTGTGACTAGCCAATCTCCAGGACTTCAAGTTAGATGTGCAGCACGTGATTGAAGTG  
GATGAGGGAAACACAGCAGTCATTGCCCTGCCACCTGCCTGAGAGCCACCCCAAAGCCAGGTCCGGTACA  
GCGTCAAACAAGAGTGGCTGGAGGCCTCCAGAGGTAACACTACCTGATCATGCCCTCAGGGAACCTCCAGAT  
TGTGAATGCCAGCCAGGAGGACGAGGGCATGTACAAGTGTGCAGCCTACAACCCAGTGACCCAGGAAGTG  
AAAACCTCCGGCTCCAGCGACAGGCTACGTGTGCGCCGCTCCACCGCTGAGGCTGCCCGCATCATCTACC  
CCCCAGAGGCCAAACCATCATCGTCACCAAAGGCCAGAGTCTCATTCTGGAGTGTGTGGCCAGTGGAAAT  
CCCACCCACCGGTACCTGGGCAAGGATGGGTCCAGTGTACCGGCTACAACAAGACGCGCTTCCTG  
CTGAGCAACCTCCTCATCGACACCACGAGGAGGACTCAGGCACCTACCGCTGCATGGCCGACAATG  
GGGTTGGGCAGCCCGGGCAGCGGTCTCCTCTACAATGTCCAGGTGTTTGAACCCCTGAGGTACCCAT  
GGAGCTATCCAGCTGGTTCATCCCTGGGGCCAGAGTGCCAAGCTTACCTGTGAGGTGCGTGGGAACCC  
CCGCCCTCCGTGCTGTGGCTGAGGAATGCTGTGCCCTCATCTCCAGCCAGCGCCTCCGGCTCTCCCGCA  
GGGCCCTGCGCGTGTGCTCAGCATGGGCTGAGGACGAAGGCGTCTACCAGTGCATGGCCGAGAACGAGGT  
TGGGAGCGCCATGCCGTAGTCCAGCTGCGGACCTCCAGGCAAGCATAACCCAAAGGCTATGGCAGGAT  
GCTGAGCTGGCTACTGGCACACCTCCTGTATCACCTCCAACCTCGGCAACCTGAGCAGATGCTGAGGG  
GGCAACCGCGCTCCCCAGACCCCAACGTGAGTGGGCGCTGCTCCCGCAGTGTCCAGGAGAGAAGGG  
GCAGGGGCTCCCGCGAGGCTCCCATCATCTCAGCTCGCCCGCACCTCAAGACAGACTCATATGAA



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CTGGTGTGGCGGCTCGGCATGAGGGCAGTGGCCGGGCGCCAATCCTCTACTATGTGGTGAACACCCGCA  
 AGGTACAAAATCCTCTGACGATTGGACCATCTCTGGCATTCCAGCCAACCAGCACCCGCTGACCCTCAC  
 CAGACTTGACCCCGGGAGCTTGTATGAAGTGGAGATGGCAGCTTACAACCTGTGCGGGAGAGGGCCAGACA  
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 AGCTCCCGACAGGCCACCATCTCCACGGCCTCCGAGACCTCAGTGTACGTGACCTGGATTCCCCCTGGG  
 AATGGTGGGTTCCCAATCCAGTCTTCCGTGTGGAGTACAAGAAGCTAAAGAAAGTGGGAGACTGGATT  
 TGGCCACCAGCGCCATCCCCCATCGCGGCTGTCGTGGAGATCACGGGCTAGAGAAAGGCACCTCCTA  
 CAAGTTTCGAGTCCGGGCTCTGAACATGCTGGGGAGAGCGAGCCAGCGCCCTCTCGGCCCTACGTG  
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 CTTTTATATCTATTATCGACCCACAGACAGTGAACATGATAGTACTACAAGAAGGATATGGTGAAGGG  
 GACAAGTACTGGCACTCCATCAGCCACCTGCAGCCAGAGACCTCTACGACATTAAGATGCAGTGTCTCA  
 ATGAAGGAGGGGAGAGCGAGTTCAGCAACGTGATGATCTGTGAGACCAAAGCTCGGAAGTCTTGGCCA  
 GCCTGGTGCAGTCCACCCCAACTCTGGCCCCACCACAGCCGCCCTTCTGAAACCATAGAGCGGCCG  
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 CCATCGTTCTCATCATCGTCACCTTCATCCCTCTGCTTGTGGAGGGCCTGGTCTAAGCAAAAACATAC  
 AACAGACCTGGGTTTTCTCGAAGTGCCCTTCCACCTCTGCCCGTATACTATGGTGCCATTGGGAGGA  
 CTCCCAGGCCACCAGGCCAGTGGACAGCCCTACCTCAGTGGCATCAGTGGACGGGCTGTGCTAATGGGA  
 TCCACATGAATAGGGGCTGCCCCCGGCTGCAGTGGGCTACCCGGGATGAAGCCCCAGCAGCACTGCC  
 AGGCGAGCTTCAGCAGCAGAGTACACCAGCAGCTGCTGAGGCAGACCCATCTTGGCAATGGATATGAC  
 CCCCAGTACCAGATCAGAGGGTCCCAAGTCTAGCCGGACGAGGGCTCTTTTATACACACTGC  
 CCGACACTCCACTCACCAGTCTGCAGCCCCATCAGACTGCTGCAACGCCAGGAGCAGCCTGCTGC  
 TGTGGCCAGTACAGGGGTGAGGAGAGCCCCGACAGTCCCTGTCTGGAAGCAGTGTGGGACCTCCATTT  
 CACTCAGGGCCCCATGCTGCTTGGCCTTGTGCCAGTTGAAGAGGTGGACAGTCTGACTCTGCCAAG  
 TGAGTGGAGGAGACTGGTGTCCCCAGCACCCTGAGGGCCTACGTAGGACAGGAACCTGGAATGCAGCT  
 CTCCCCGGGGCCACTGGTGCCTGTCTTTTGAACACCACCTCTACAATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221013 representing NM\_033254  
 Red=Cloning site Green=Tags(s)

MLRGTMTAWRGMPEVTLACLALLATAGCFADLNEVPQVTVPASTVQKPGGTVILGCVVEPPRMNVTWRL  
 NGKELNGSDDALGVLITHGTLVITALNNHTVGRYQCVARMPAGAVASVPATVTLANLQDFKLDVQHVEV  
 DEGNTAVIACHLPESHKAQVRYSVKQEWLEASRGNLIMPSTGNLQIVNASQEDEGMYKCAAYNPVTQEV  
 KTSGSSDRLRVRRSTAEAAARIIPPEAQTIIIVTKGQSLILECVASGIPPPRVTWAKDGSSVTGYNKTRFL  
 LSNLLIDTTSEEDSGTYRCMADNGVGPAAVILYNVQVFEPPEVTMELSQLVIPWQSAKLTCEVRGNP  
 PPSVLWLRNAVPLISSQRLRLSRRALRVL SMGPEDEGVYQCAENEVGS AHAVVQLRTSRPSITPRLWQD  
 AELATGTPPVSPSKLGNPEQMLRGQPALPRPPTSVGPASPQCPGEGQGAPAEAPIILSSPRTSKTDSYE  
 LVWRPRHEGSGRAPILYYVVKHRKVTNSDDWTISGIPANQHRLTLTRLDPGSLYEVEMAAYNCAGEGQT  
 AMVTFRTGRRPKPEIMASKEQQIQRDDPGASPQSSQPDHGR LSPPEAPDRPTISTASETSVYVTWIPRG  
 NGGFPIQSFVRVEYKLLKVDWILATSAIPPSRLSVEITGLEKGT SYKFRVRALNMLGESEPSAPSRPV  
 VSGYSGRVYERP VAGPYITFTDAVNETT IMLKWMYIPASNNTPIHGFYIYRPTDSDNDSYKDMVEG  
 DKYWHISHLQPETS YDIKMQCFNEGGESEF SNVMICETKARKSSGQPGRLPPPTLAPPQPLPETIERP  
 VGTGAMVARSSDLPYLIVGVVLSIVLIIIVTFIPFCLWRWSKQKHTTDLGFPRALPPSPYTMVPLGG  
 LPGHQASGQPYLSGISGRACANGTHMNRGCP SAAVGYPMKPPQHQCPGELQQQSDTSSLRQTHLNGYD  
 PQSHQITRGPKSSPDEGSFLYTL PDDSTHQLLQPHHDCCQRQEQA AVGQSGVRRAPDSPVLEAVWDPFP  
 HSGPPCCLGLVPVEEVDSPDSCVSGGDWCPQHPV GAYVQEPGMQLSPGPLVRVSFETPLTI

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_033254

**ORF Size:** 3342 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](mailto: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.

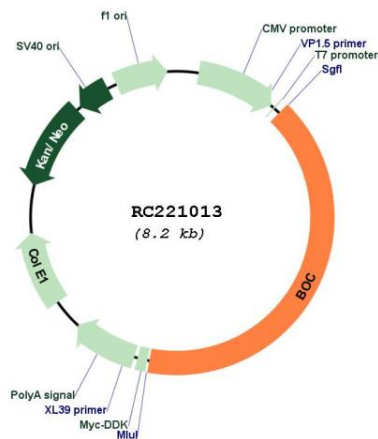
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

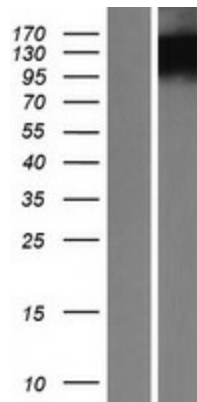
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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\\_033254.4](#)  
**RefSeq Size:** 4293 bp  
**RefSeq ORF:** 3345 bp  
**Locus ID:** 91653  
**UniProt ID:** [Q9BWW1](#)  
**Cytogenetics:** 3q13.2  
**Protein Families:** Druggable Genome, Transmembrane  
**MW:** 120.9 kDa  
**Gene Summary:** The protein encoded by this gene is a member of the immunoglobulin/fibronectin type III repeat family. It is a component of a cell-surface receptor complex that mediates cell-cell interactions between muscle precursor cells, and promotes myogenic differentiation. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2014]

### Product images:



Circular map for RC221013



Western blot validation of overexpression lysate (Cat# [LY409658]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221013 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).