

## Product datasheet for **RC203292**

### UBC (NM\_021009) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	UBC (NM_021009) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	UBC
Synonyms:	HMG20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC203292 ORF sequence, **codon optimized**.  
**Due to the complexity of NM\_021009, the ORF clone is codon optimized for mammalian Expression.**  
**The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.**

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCAATCTTTGTGAAGACTCTGACGGGGAAAACCATAACACTGGAAGTCGAACCTTCTGATACTATAG  
 AAAATGTCAAGGCAAAGATTCAGGATAAAGAAGGTATCCCACGGATCAGCAGCGACTGATCTTCGCAGG  
 TAAGCAACTGGAGACGGACGCACTTTGTCAGATTATAACATTCAAAGGAAAGCAGCTCCACCTGGTC  
 TTGCGGCTGCGGGGAGGCATGCAGATCTTTGTGAAAACATTGACCGGCAAGACAATTACCCTCGAGGTGG  
 AACCCAGCGACACCATTGAGAATGTCAAGGCCAAGATTACAGACAAGGAGGGAATTCCTCCAGATCAGCA  
 GAGACTCATCTTCGCCGGGAAGCAGCTGGAAGACGGACGCACTCTGTCTGACTACAATATCCAGAAGGAA  
 TCAACTCTCCACCTCGTCTGAGGCTGAGAGGAGGAATGCAGATATTTGTAACCACTTACCGGGCAAAA  
 CAATAACCCTTGAAGTCGAACCTCTGATAACAATAGAGAACGTGAAAGCCAAAATTCAGGACAAGGAGGG  
 GATTCCGAGCGATCAGCAGCGCTTGATCTTTGCTGGGAAGCAGCTCGAGGACGGTCAACTCTTAGTGAC  
 TATAATATCCAGAAGGAGACACCCTCACCTGGTCTGAGGCTGCGAGGGGGAATGCAGATTTTGTGA  
 AGCCCTGACCGGCAAAACAATTACACTTGAGGTGGAACCTAGCGACACTATCGAGAATGTAAGGCAAA  
 AATACAGGACAAGGAAGGAATACCTCCTGACCAGCAGAGGCTTATTTTTGCAGGGGAAGCAACTGGAGG  
 GGACGGACTCTGAGTGACTATAATATACAGAAAGAAATCCACCCTCCACCTGGTACTCAGACTCCGGCGG  
 GGATGCAGATTTTTGTAAGACCCTCACCGGGAAGACTATCACTCTGGAGGTGCAACCTCCGACACTAT  
 CGAGAACGTAAGGCAAGATCCAGGATAAGGAGGGAATCCCCCAGACCAGCAGCGTTGATTTTTGCA  
 GGAAAACAACCTGAGGACGGACGCACTTGTCTGACTACAATATCCAAAAGGAGTCAACCTTGCATCTTG  
 TCCTCAGACTGCGCGGGGAATGCAGATTTTCGTGAAGACCCTCACTGGCAAAACAATCACGCTCGAGGT  
 GGAGCCTCCGATACTATAGAGAATGTCAAGGCAAAGATACAGGATAAAGAAGGCATCCCCCTGACCAG  
 CAGCGGCTGATCTTTGCGGGAAAGCAGCTCGAGGATGGCCGAACCTGTGCAGATTACAATATTCAGAAAG  
 AATCCACCCTTCACTGCTGCTTCGGCTTAGAGGAGGAATGCAAACTTTGTGAAGACCCTACGGGAAA  
 GACTATTACGCTGGAGGTGGAACCCAGCGATACGATAGAAAACGTGAAGGCAAAAATTCAGATAAAGAA  
 GGAATCCCTCCGACCAGCAGCGGCTTATTTTCGCTGGCAAGCAGCTTGAGGACGGGCGCACACTGTCTG  
 ATTACAATATTCAAAAGGAAAGCACCTGCATCTGGTACTGCGGCTGAGGGGCGGTATGCAGATTTTCGT  
 CAAAACGCTCACCGGCAAAACGATAACACTGGAAGTTGAACCTCAGACACGATTGAGAAGTAAAGGCA  
 AAAATTCAGACAAGGAGGGAATTCACCAGGATCAGCAGCGCCTGATTTTTGCCGGCAAGCAGCTGGAGG  
 ATGGTCGGACCCTCAGTGATTACAATATTCAGAAGGAGTCCACTCCATCTGGTCTGAGGTTGAGGGG  
 TGGAATGCAGATTTTTGTCAAGACTCTCACCGGAAGACTATTACCCTCGAAGTGGAGCCCTCCGATACC  
 ATCGAGAATGTGAAGGCTAAAATCCAGGACAAGGAGGTATCCCACCTGATCAACAGAGGCTTATCTTCG  
 CTGGCAACAGCTGGAGGACGGCCGACCCTGAGCGACTATAATATCCAAAAGGAGTCAACTCTGCACCT  
 TGTAAGGATGACGACGATAAGGTTTAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203292 representing NM\_021009  
 Red=Cloning site Green=Tags(s)

MQIFVKLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLLIFAGKQLEDGRTLSDYNIQKESTLHLV  
 LRLRGGMQIFVKLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLLIFAGKQLEDGRTLSDYNIQKE  
 STLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDTIENVKAKIQDKEGIPSDQQRLLIFAGKQLEDGRTLSD  
 YNIQKESTLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLLIFAGKQLED  
 GRTLSDYNIQKESTLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQRLLIFAG  
 GKQLEDGRTLSDYNIQKESTLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQ  
 QRLIFAGKQLEDGRTLSDYNIQKESTLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDTIENVKAKIQDKE  
 GIPPDQQRLLIFAGKQLEDGRTLSDYNIQKESTLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDTIENVKA  
 KIQDKEGIPPDQQRLLIFAGKQLEDGRTLSDYNIQKESTLHLVLRRLRGGMQIFVKLTGKTITLEVEPSDT  
 IENVKAKIQDKEGIPPDQQRLLIFAGKQLEDGRTLSDYNIQKESTLHLVLRRLRGGV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM\_021009

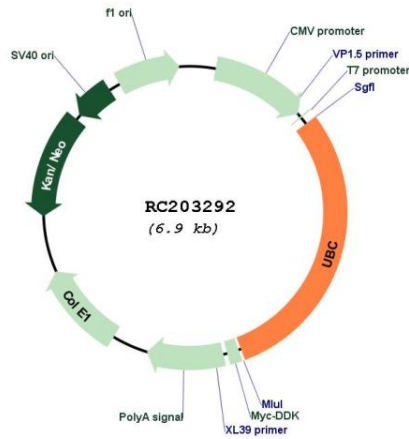
ORF Size: 2055 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_021009.2</a> , <a href="#">NM_021009.3</a> , <a href="#">NM_021009.4</a> , <a href="#">NM_021009.5</a> , <a href="#">NM_021009.6</a> , <a href="#">NP_066289.2</a>
<b>RefSeq Size:</b>	2193 bp
<b>RefSeq ORF:</b>	2058 bp
<b>Locus ID:</b>	7316
<b>UniProt ID:</b>	<a href="#">P0CG48</a>
<b>Cytogenetics:</b>	12q24.31
<b>Domains:</b>	UBQ
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	PPAR signaling pathway
<b>MW:</b>	77 kDa

**Gene Summary:**

This gene represents a ubiquitin gene, ubiquitin C. The encoded protein is a polyubiquitin precursor. Conjugation of ubiquitin monomers or polymers can lead to various effects within a cell, depending on the residues to which ubiquitin is conjugated. Ubiquitination has been associated with protein degradation, DNA repair, cell cycle regulation, kinase modification, endocytosis, and regulation of other cell signaling pathways. [provided by RefSeq, Aug 2010]

**Product images:**



Circular map for RC203292