

## Product datasheet for **RC200734**

### KPC2 (UBAC1) (NM\_016172) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KPC2 (UBAC1) (NM_016172) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KPC2
Synonyms:	GBDR1; KPC2; UBADC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200734 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTTCGTGCAGGAGGAGAAGATCTTCGCGGGCAAGGTGCTGCGGCTGCACATCTGCGCGTCCGACGGCG  
CCGAGTGGCTGGAGGAGGCCACCGAGGACACCTCGGTGGAGAAGCTCAAGGAGCGCTGCCTCAAGCACTG  
TGCTCATGGGAGCTTAGAAGATCCCAAAAGTATAACCCATCATAAATTAATCCACGCTGCCTCAGAGAGG  
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AGCTCCAGATAAAGAGGCCATACTGCGGGCCACCGCAACCTGCCCTCCTACAACATGGACCGGGCCGCG  
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AGAAGCTGTTAGCGCTGAACCCAGATGCGGTGGAATTGTTAAGAAGGCGAATGCAATGCTGGACGAGGA  
CGAGGATGAGCGTGTGGACGAGGCTGCCCTGCGGCAGCTCACGGAGATGGGCTTCCGGAGAACAGAGCC  
ACCAAGGCCCTTCAGCTGAACCATGTGCGTGCCTCAGGCCATGGAGTGGCTAATTGAACACGCAGAA  
ACCCGACCATAGACACGCCTCTTCTGGCCAAGCTCCCCAGAGGCCGAGGGGGCCACAGCAGCTGCCTC  
CGAGGCTGCCGCGGGAGCCAGCGCCACCGATGAGGAGGCCAGAGATGAGCTGACGGAAATCTTCAAGAAG  
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GGACCGGAAGCCCTCTCCGGAGGAGCTGGACAAGGCATCGACCCGACAGTCTCTCTTTCAGGCCATC  
CTGGATAACCCGGTGGTGCAGCTGGGCCTGACCAACCCGAAAACATTGCTAGCATTTGAAGACATGCTGG  
AGAACCCACTGAACAGCACCCAGTGGATGAATGATCCAGAAACGGGGCCTGTCATGCTGCAGATCTCTAG  
AATCTTCCAGACACTAAATCGCACG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200734 protein sequence  
Red=Cloning site Green=Tags(s)

MFVQEEKIFAGKVLRLHICASDGAEWLEEATEDTSVEKLERCLKHCAHGSLEDPKSITHHKLIIHAASER  
 VLSDARTILEENIQDQVLLL IKKRAPSPLPKMADVSAEKKKQDQKAPDKEAILRATANLPSYNDRAA  
 VQTNMRDFQTEL RKILVSLIEVAQKLLALNPDAVELFKKANAMLDEDEDERVDEAALRQL TEMGF PENRA  
 TKALQLNHMSVPQAMEWLI EHAEDPTIDTPLPGQAPPEAEGATAAASEAAAGASATDEEARDELTEIFKK  
 IRRKREFRADARAVISL MEMGFDEKEVIDALRVNNNQNAACEWLLGDRKPSPEELDKGIDPDSPLFQAI  
 LDNPVVQLGLTNPKTLLAFEDMLENPLNSTQWMNDPETGPVMLQISRIFQTLNRT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6396\\_e12.zip](https://cdn.origene.com/chromatograms/mk6396_e12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_016172

**ORF Size:** 1215 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:**

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\\_016172.2](#), [NP\\_057256.2](#)

**RefSeq Size:** 1877 bp

**RefSeq ORF:** 1218 bp

**Locus ID:** 10422

**UniProt ID:** [Q9BSL1](#)

**Cytogenetics:** 9q34.3

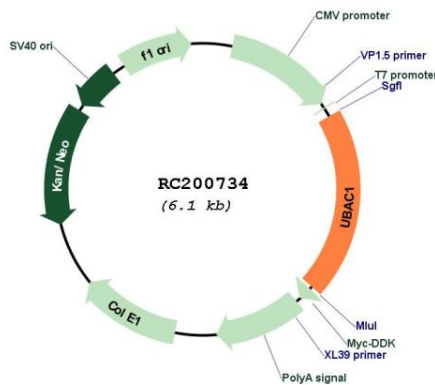
**Domains:** UBA, ST11

**Protein Families:** Druggable Genome

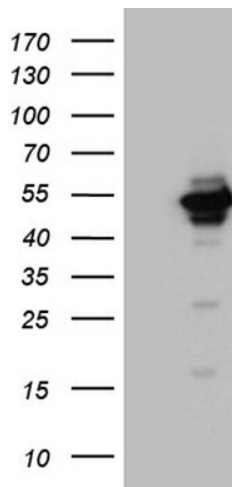
**MW:** 45.3 kDa

**Gene Summary:** Non-catalytic subunit of the KPC complex that acts as E3 ubiquitin-protein ligase. Required for poly-ubiquitination and proteasome-mediated degradation of CDKN1B during G1 phase of the cell cycle.[UniProtKB/Swiss-Prot Function]

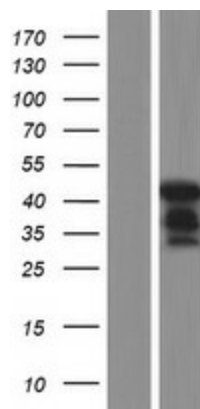
### Product images:



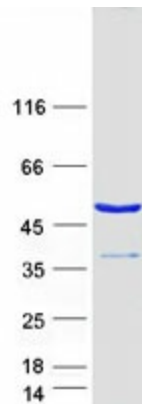
Circular map for RC200734



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY UBAC1 (Cat# RC200734, 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-UBAC1 (Cat# [TA810288])(1:2000). Positive lysates [LY414142] (100ug) and [LC414142] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414142]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200734 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified UBAC1 protein (Cat# [TP300734]). The protein was produced from HEK293T cells transfected with UBAC1 cDNA clone (Cat# RC200734) using MegaTran 2.0 (Cat# [TT210002]).