

Product datasheet for **RC228564**

DBC2 (RHOBTB2) (NM_001160037) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DBC2 (RHOBTB2) (NM_001160037) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DBC2
Synonyms:	DBC2; DEE64; EIEE64; p83
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC228564 representing NM_001160037
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAAGCGCGGTCCCGTTTAATGGATTCTGACATGGATTATGAAAGGCCAAACGTAGAGACCATCAAGT
 GCGTTGTGGTGGGGACAAACGCCGTGGTAAGACCAGGCTCATCTGTGCCGCGCTTGAATGCCACCCCT
 CACCCAGTACCAGCTGCTGGCCACGCATGTGCCACAGTATGGGCCATCGACCAATATCGTGTGTGCCAG
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 GAGACCACCACAAAGACCGTCGCTTTGCTTATGGGAGATCTGATGTGGTGGTTCTGTGCTTCTCCATTGC
 CAACCCCAATTCCTCCACCATGTCAAGACCATGTGGTACCCAGAAATCAAGCACTTCTGCCCCGAGCA
 CCTGTCATCTTGGTGGGCTGCCAGTTGGACCTGCGCTACGCTGACCTGGAGGCTGTCAACAGGGCTAGGC
 GACCCTTGGCTAGGCCCATCAAACCTAATGAAATCCTGCCCCAGAGAAGGGTCGGGAGGTGGCCAAGGA
 GCTGGGCATCCCCTACTATGAGACCAGCGTGGTGGCCAGTTCGGCATCAAGACGTCTTTGACAACGCC
 ATCCGAGCTGCACTCATCTCCCGCCGCCACCTGCAGTTCTGGAAGTCCCACCTCCGCAATGTGCAGCGGC
 CTCTGCTGCAGGCACCTTCTACCCCCAAGCCACCGCCCCGATCATCGTGGTGGCCGACCTCCCTC
 CAGCAGCGAGGAGTGCCCGCCACCTCCTGGAGGACCGCTCTGCGCGGACGTATCCTGGTGTGCGAG
 GAGCGGTGCGCATCTTTGCCACAAGATCTACCTCTCCACCTTCTCCTCAAGTTCTATGACCTGTTCC
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 AGCTTTGACGTGTGCGAGAGCGTGGATGAGGCTGGGGCTCCGGTCTGCTGGCCTCCGTGCTTCCACCA
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 GTCCGCCGACCAACCGGTTAAGGAGTGTGGCAAAGGCACCTTCTCAGATGTGACCTTATCCTGG
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 GGGCCATTTGTGGAGAGCTCCACCCGGGAGTGGTGTTCCTACACAAGCAAGAGCTGCATGCGGGCC
 GTGCTGGAATACCTCTACACCGCATGTTACCTCCAGCCCCGACCTGGATGACATGAAGCTCATATTC
 TAGCCAACCGCCTCTGCCTGCCACACCTGGTTCCTCACAGAGCAGTACACAGTGACCGGGCTGATGGA
 AGCGACCCAGATGATGGTGGACATCGATGGGGACGTCTTGTGTTCTGGAAGTGGCTCAGTTCCTACTGT
 GCGTACCAGCTGGCCGACTGGTGTCTCCACCACATCTGCACCAACTACAACAACGTGTGCCGCAAGTTCC
 CCCGAGACATGAAGGCCATGTCCCAGAAAACCAGGAGTATTTGAGAAGCATCGGTGGCCACCTGTGTG
 GTACCTGAAGGAGGAAGATCATTACCAGCGGGCACGGAAGGAGCGTGAGAAGGAGGACTACCTCCACCTC
 AAGCGGACGCCAAACGGCGTTGGCTCTTCTGGAACAGTCCATCTCCCCGTCTTCTCGGCAGCCTCCT
 CCTCATCCCCATTTCTCCTCGGCTGTGGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC228564 representing NM_001160037
Red=Cloning site Green=Tags(s)

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MKARSRLMDSMDYERPNETIKCVVVDNAVGKTRLICARACNATLTQYQLLATHVPTVWVWIDQYRVCG
EVLERSRDVDDVSVSLRLWDTFGDHHKDRRFAYGRSDVVVLCFSIANPNLSLHHVKTMMWPEIKHFCPRA
PVILVGCQLDLRYADLEAVNRARRPLARPIKNEILPPEKGREVAKELGIPYYETSVVAQFGIKDVFDNA
IRAAISRRHLQFWKSHLRNVQRPLLQAPFLPPKPPPIIVVDPSPSSSECPAHLLEDPLCADVILVLQ
ERVRIFAHKIYLLSTSSSKFYDLFLMDLSEGLGGPSEPGGTHPEDHQGHSDQHHHHHHHHHGRDFLLRAA
SFDVCEVDEAGGSGPAGLRASTSDGILRGNGTYLPGRGRVLSWSRAFVSIQEEMAEDPLTYKSRLMV
VVKMDSIQQPGFRAVLKYLTYGELDENERDLMHIAHIAELLEVFDLRMMVANILNNEAFMNQEITKAFH
VRRTRNVKECLAKGTFSDVTFILDDGTISAHKPLLISSCDWMAAMFGGPFVESSTREVVFPYTSKCMRA
VLELYLTYGMFTSSPDLDMMKLIILANRLCLPHLVALTEQYTVTGLMEATQMMVDIDGDVLFLELAQFHC
AYQLADWCLHHICTNYYNVCRKFPDMKAMSPENQYEFKHRWPPVWYLKEEDHYQRARKEREKEDYLHL
KRQPKRRWLFWNSPSSPSSSAASSSSPSSSSAVV
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8038_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001160037

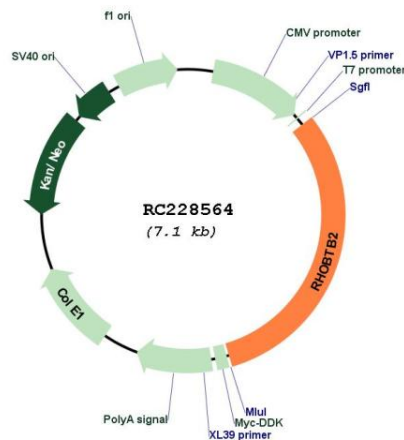
ORF Size: 2202 bp

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](#)

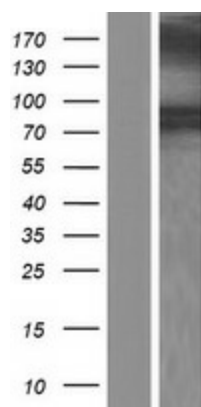
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none"> 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:	<u>NM_001160037.2</u>
RefSeq ORF:	2205 bp
Locus ID:	23221
UniProt ID:	<u>Q9BYZ6</u>
Cytogenetics:	8p21.3
Protein Pathways:	Ubiquitin mediated proteolysis
MW:	83.3 kDa
Gene Summary:	The protein encoded by this gene is a small Rho GTPase and a candidate tumor suppressor. The encoded protein interacts with the cullin-3 protein, a ubiquitin E3 ligase necessary for mitotic cell division. This protein inhibits the growth and spread of some types of breast cancer. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]

Product images:



Circular map for RC228564



Western blot validation of overexpression lysate (Cat# [LY431592]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228564 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).