

## Product datasheet for SC114916

### VPRBP (DCAF1) (NM\_014703) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	VPRBP (DCAF1) (NM_014703) Human Untagged Clone
Tag:	Tag Free
Symbol:	VPRBP
Synonyms:	RIP; VPRBP
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_014703 edited  
AGCCGTGGTCGCGCTGTGTGTGTGTGAGTGGAGAGTGTGAGTGGGGACCTGAGGCTGTG  
TGTGTGAACTGTGGCCACTGGCGGGTGGGGGGCAGCGGGGAGCCGCCTCGGACG  
GCAAAGCCATGACTACAGTAGTGGTACATGTGGACTCCAAGCTGAGCTACTACCTGC  
TGGAGCAGTGGGAAAAGAACATGGCAGTGGGCAGGACATGGTACCTATCCTTACCAGGA  
TGTCTCAATTGATTGAAAAAGAACTGAAGAGTATCGTAAAGGGGATCCAGACCCATTTG  
ATGATCGACATCCTGGTCGAGCTGATCCAGAGTGTATGCTGGCCACTTGTGAGAATAC  
TCTTCAAGAAATGATGATTTTCATGAAT : : CTGGTGAATGCATATGTGATGACAAGCCGAG  
AGCCCCCTTAAACTGCAGCTTGCAGACTCCTATTAGACATCATGCCAGGGCTGGAAA  
CTGCTGTCGTCTTCAAGAAAAGGAGGGAATTGTCGAGAATCTTTCAAATGGGCCCGAG  
AGGCCGATCAACCATTGAGGACATATTCTACTGGACTGTTAGGAGGTGCTATGGAAAATC  
AAGACATTGCTGCCAACTATAGAGATGAAAATTCACAGCTGGTGGCAATAGTGCTTCGAA  
GACTGAGGGAGCTACAGCTACAGGAAAGTGGCTTTGCGGCAGGAAAACAAGCGTCCCAGTC  
CACGGAAGCTCTCTTCTGAACCCCTTTTGCCTCTGGATGAGGAGGCTGTGGATATGGACT  
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ATTACCTATCCTACAATCAGGATGCCATGGAAAGAGTTTGCATGCATCCCCACAATGTT  
TGCTGTGATGGTGAACATAACCCTGTGGTTAATGGAGTGTCTCATGCTTCAGGATGCT  
GCCATGCTACCATGTTTTTTTCAATTTGCTTCTCATTTTGGGCCGCTCTTGAGCTCTTTG



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ACCGCTATGATGGTCTTCGTCGCTGGTGAACCTGATCAGTACTTTGGAGATTCTAAATT  
 TGGAAGATCAGGGTGCACCTTCTGAGTGATGATGAAATATTTGCTAGCCGCCAAACTGGGA  
 AACATACCTGCATGGCCTTGCGCCAAACTTTGAGGCTCACCTGGCCATTAATTTGGAAC  
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 GCGTGGTGTCAATCACACGGGAACAGTGTATGGAGCTATGTTGCAGGCAGATGATG  
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 ATGCAACTGACTACAACTATAGCAACCATTGATGTGAAACGGAACTCTTTGACCTGT  
 GTACAGACACAAAGACTGCTATCTTGTGTCATTGAGAATCAAGGCAGCATGGATGCC  
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 AAGATGACATCATCTTATCTCTGAATGAGTGGAGGCCATCACTGCTTGGAGAGATTCT

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TGGCAGAGAGAAGAGGGGACAAATTTGGTTGTGAAGTAAACAAGAAACACAAGACGGCTA
AAACTCTCCAGGGGCAGGTAAAGCCCTGCTGGGCTCAGAAGCACTATAGAATTTGCTGTA
CACACTGAAGTGGGTCTGTGTCACACAGGTATTTCTTGGTCTCTGGAGAGCAGAGGACT
CACTCAGCTCTTTGCTTCATGCCTCGCTTAAATGGTAGTAAACACTTAACCAGTGGAAATA
GTCTGACTGCTGGTACTGATGGCATCAGAAGAAAAACAGGTTAACAAATCAAGTAGTGAAAG
CACTATATTCTAGTCATTAACCTAACCGGAGCCAGTCTCAACTCTGCGGGGAGCACCCACA
GGTCTCTGTGGGGGAGACAGGGACTATAACAGGGAGGCAGAATTCAGGTTGGCTTGACAA
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CAGGGCTGAAAATCGGAGTCACTTAGGAGGCAGCATGAGAACAGTGGCACACCACCAAGT
AGGCACATGTTGCCTTTTTGTCTTTAAGCAACACCTTAGACAGGGCCTGAACCCTGGGTG
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AGGACATTGACCACCTGACCTCCCCTAACTAGTGTGGCCAAGGCCTGAGAGTTCACAGA
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ACTTTTCTGAAGAGGGGTTGGATAAGGCAAAGTTGAAGTGTCTTCTAGGCAGTT
TTCTAGCATGTTTCTTTTACTTGGTTCTGTCTACAAAGCTGGGAGGTAGATGATTCTT
CCGGGTCCTGAGCACCTGCTTATGAAGGAAGATAGGTAGCCCAGAGAAGAGTTTTGGA
CTTAACAACATACCAAGGCAGCTCTGGCCTGTGACTCAGGCGTTTGTGGAGAGCTGCAG
GAAAACCACTGCAGTGTGCCTGCAACAGGACAAGACCCACTCCTGTTTCTGGCGTACCA
GCTACCTGGAATGGTGGCGTGTCTGTGTACCAACTGACTTGCTTAGGTACCTGGCA
GCTGTGACCACAGCTCAAGTAAAAAACAAAAACAGGCAAATAAATAAACATGCTTAACA
TAAAAAAAAAAAAAAAAA
```

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_014703

**Insert Size:**

5900 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:**

The ORF of this clone has been fully sequenced and found to contain 3bp deletion compared with NM\_014703.1.

**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\\_014703.1](#), [NP\\_055518.1](#)

**RefSeq Size:** 5984 bp

**RefSeq ORF:** 4524 bp

**Locus ID:** 9730

**UniProt ID:** [Q9Y4B6](#)

**Cytogenetics:** 3p21.2

**Domains:** LisH

**Gene Summary:** Acts both as a substrate recognition component of E3 ubiquitin-protein ligase complexes and as an atypical serine/threonine-protein kinase, playing key roles in various processes such as cell cycle, telomerase regulation and histone modification. Probable substrate-specific adapter of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex, named CUL4A-RBX1-DDB1-DCAF1/VPRBP complex, which mediates ubiquitination and proteasome-dependent degradation of proteins such as NF2. Involved in the turnover of methylated proteins: recognizes and binds methylated proteins via its chromo domain, leading to ubiquitination of target proteins by the RBX1-DDB1-DCAF1/VPRBP complex (PubMed:23063525). The CUL4A-RBX1-DDB1-DCAF1/VPRBP complex is also involved in B-cell development: DCAF1 is recruited by RAG1 to ubiquitinate proteins, leading to limit error-prone repair during V(D)J recombination. Also part of the EDVP complex, an E3 ligase complex that mediates ubiquitination of proteins such as TERT, leading to TERT degradation and telomerase inhibition (PubMed:23362280). Also acts as an atypical serine/threonine-protein kinase that specifically mediates phosphorylation of 'Thr-120' of histone H2A (H2AT120ph) in a nucleosomal context, thereby repressing transcription. H2AT120ph is present in the regulatory region of many tumor suppressor genes, down-regulates their transcription and is present at high level in a number of tumors (PubMed:24140421). Involved in JNK-mediated apoptosis during cell competition process via its interaction with LLGL1 and LLGL2 (PubMed:20644714).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Variants 1, 3, 4, and 5 all encode the same isoform (1).