

## Product datasheet for **RG204576**

### Vinculin (VCL) (NM\_003373) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Vinculin (VCL) (NM_003373) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	VCL
Synonyms:	CMD1W; CMH15; HEL114; MV; MVCL
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RG204576 representing NM_003373 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGCCAGTGTTCATACGCGCACGATCGAGAGCATCCTGGAGCCGGTGGCACAGCAGATCTCCACCTGG  
TGATAATGCACGAGGAGGGCGAGGTGGACGGCAAAGCCATTCTGACCTCACCGGCCCGTGGCCCGCT  
GCAGGGCGCCGTAGCAACCTCGTCCGGTTGGAAAAGAGACTGTTCAAACCACTGAGGATCAGATTTTG  
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TGCTTCAGTCAGACCCTTACTCAGTGCCTGCTCGAGATTATCTAATTGATGGGTCAAGGGGCATCCTCTC  
TGGAAATCAGACCTGCTCCTTACCTTCGATGAGGCTGAGGTCCGTAATAATTATTAGAGTTTGCAAAGGA  
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ATTTTGTAACTAAAACTAAAAACCAAGGCATAGAGGAAGCTTTAAAAAATCGCAATTTTACTC  
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AATTAGCAGATCTACGAAGACAGGGGAAAGGAGATTCTCCAGAGGCTCGAGCCTTGCCAAACAGGTGGC  
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GTACACCTTGAGGGCAAGATTGAGCAAGCACAGCGGTGGATTGATAATCCACAGTGGATGACCGTGGAG



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TCGGTCAGGCTGCCATCCGGGGCTTGTGGCCGAAGGGCATCGTCTGGCTAATGTTATGATGGGGCCTTA  
 TCGGCAAGATCTTCTCGCCAAGTGTGACCGAGTGGACCAGCTGACAGCCCAGCTGGCTGACCTGGCTGCC  
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 GATGCTGGATTTACACTGCGCTGGTTAGAAAGACTCCCTGGTACCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG204576 representing NM\_003373  
 Red=Cloning site Green=Tags(s)

MPVFHTRTIESILEPVAQQISHLVIMHEEGEVDGKAIPDLTAPVAAVQAAVSNLVRVGKETVQTTEDQIL  
 KRDMPPAFIKVENACTKLVQAAQMLQSDPYSPARDYLIDGSRGILSGTSDLLLTFDEAEVRKIIRVCKG  
 ILEYLTVAEVETMEDLVYTKNLGPGMTKMAKMIDERQQELTHQEHRVMLVNSMNTVKELLPVLISAMK  
 IFVTTKNSKNQGIIEALKNRNFTLEKMSAEINEIRVLQLTSWDEDAWASKDTEAMKRALASIDSKLNQA  
 KGWLRDPSASPGDAGEQAIRQILDEAGKVGELCAGKERREILGTCKMLGQMTDQVADLRARGQSSPVAM  
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 QWIDNVEKMTGLVDEAIDTKSLLDASEEAIKKDLDKCKVAMANIQPQMLVAGATSIARRANRILLVAKRE  
 VENSEDPKFREAVKAASDELSKTISPMVMDAKAVAGNISDPGLQKSFLDSGYRILGAVAKVREAFQPQEP  
 DFPPPPDLEQLRLTDELAPPKPLPEGEVPPRPPPEEKDEEFPEQKAGEVINQPMMAARQLHDEAR  
 KWSSKGNDIIAAKRMALLMAEMSRLVRGGSGTKRALIQCAKDIKASDEVTRLAKEVAKQCTDKRIRTN  
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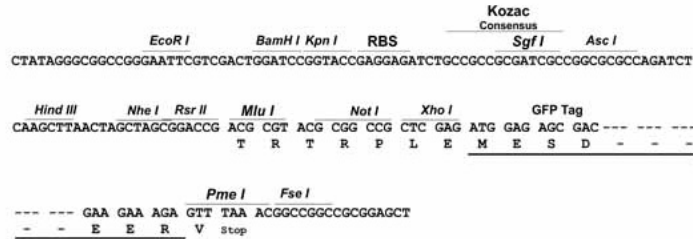
TRTRPLE - GFP Tag - V

**Restriction Sites:**

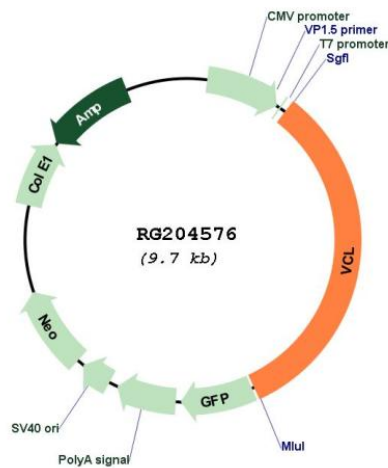
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_003373  
 ORF Size: 3198 bp

<b>OTI Disclaimer:</b>	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.
	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>
<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>RefSeq:</b>	<a href="#">NM_003373.3</a> , <a href="#">NP_003364.1</a>
<b>RefSeq Size:</b>	5443 bp
<b>RefSeq ORF:</b>	3201 bp
<b>Locus ID:</b>	7414
<b>UniProt ID:</b>	<a href="#">P18206</a>
<b>Cytogenetics:</b>	10q22.2
<b>Domains:</b>	Vinculin
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Adherens junction, Focal adhesion, Leukocyte transendothelial migration, Regulation of actin cytoskeleton

**Gene Summary:**

Vinculin is a cytoskeletal protein associated with cell-cell and cell-matrix junctions, where it is thought to function as one of several interacting proteins involved in anchoring F-actin to the membrane. Defects in VCL are the cause of cardiomyopathy dilated type 1W. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Multiple alternatively spliced transcript variants have been found for this gene, but the biological validity of some variants has not been determined. [provided by RefSeq, Jul 2008]