

## Product datasheet for **RG226443**

### DOCK9 (NM\_001130048) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DOCK9 (NM_001130048) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DOCK9
Synonyms:	ZIZ1; ZIZIMIN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG226443 representing NM_001130048 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAAGGCTGATAAATGCAGGACAAGTAGTAGAAGTGTCAAAAAGGAACTGGTGATTGAGTCCCCCTGC  
AATACAAGGATGCAGCTCAGGGCGAAGTGAAGCAGAGAGCCCGGCCCTGTGCCGCAAAGCCAAAGCT  
AATTGAGCCACTCGACTATGAAATGTCATCGTCCAGAAGAAGACTCAGATCCTGAACGACTGTTTACGG  
GAGATGCTGCTTCCCTTACGATGACTTTCAGACGGCCATCCTGAGACGACAGGGTCGATACATATGCT  
CAACAGTGCTCGGAAGGCGGAAGGAAGCACAGAGCTTGTGTTTACAGAGTGCATCAAACCTATAA  
CTCTGACTGGCATCTTGTGAATAAATATGAAGATTACTCAGGAGAGTTTCGACAGCTCCGAACAAA  
GTGGTCAAGTTGGATAAACTTCCAGTTCATGTCTATGAAGTTGACGAGGAGGTCGACAAAGATGAGGATG  
CTGCCCTCCCTTGGTTCCAGAAAGGTTGGGATCACCAAGCATGGCTGGCTGTACAAAGGCAACATGAACAG  
TGCCATCAGCGTGACCATGAGGTCATTTAAGAGACGATTTTCCACCTGATTCACCTGGCGATGGATCC  
TATAATTTGAATTTTATAAAGATGAAAAGATCTCAAAGAACCAAAAGGATCAATTTCTGGATTCTCT  
GTATGGGTGTCGTTTCAGAACAAACAAAGTCAGGCGTTTTGCTTTGAGCTCAAGATGCAGGACAAAAGTAG  
TTATCTCTTGGCAGCAGACAGTGAAGTGGAAATGGAAGAATGGATCACAATTTCTAAATAAGATCTCCAG  
CTCAACTTTGAAGCTGCAATGCAAGAAAAGCGAAATGGCGACTCTCACGAAGATGATGAACAAAGCAAAT  
TGGAAGGTTCTGGTTCGGTTTAGATAGCTACCTGCCGGAACCTGCCAAGAGTGCAGAGAAAGCAGAAAT  
CAAACGAAAAGTGAAGCAGAGTCAAACCTTTTTTATTTGGACCCAGATGCCAGAAAGCTTGACTTCTCA  
TCAGCTGAGCCAGAAGTGAAGTCATTTGAAGAGAAGTTTGGAAAAGGATCCTTGTCAAGTGCAATGATT  
TATCTTTCAATTTGCAATGCTGTGTTGCCGAAAATGAAGAAGGACCCACTACAAATGTTGAACCTTTCTT  
TGTTACTCTATCCCTGTTTGACATAAAAACAACCGGAAGATTTCTGCCGATTTCCACGTAGACCTGAAC  
CATTTCTCAGTGAGGCAATGCTCGCCACCACGTCCCCGGCGCTGATGAATGGCAGTGGGCAGAGCCCAT  
CTGTCTCAAGGGCATCCTTCATGAAGCCGCCATGCAGTATCCGAAGCAGGGAATATTTTCAGTCACTTG  
TCCTCATCCAGATATATTTCTTGTGGCCAGAATTGAAAAGTCCCTCAGGGGAGCATCACACATTGCGCT



[View online »](#)

GAGCCATATATGAAAAGTTCAGACTCTTCTAAGGTGGCCAGAAGGTGCTGAAGAATGCCAAGCAGGCAT  
GCCAAAGACTAGGACAGTATAGAATGCCATTTGCTTGGGCAGCAAGGACATTGTTAAGGATGCATCTGG  
AAATCTTGACAAAAATGCCAGATTTTCTGCCATCTACAGGCAAGACAGCAATAAGCTATCCAATGATGAC  
ATGCTCAAGTTACTTGCAGACTTTCGGAAACCTGAGAAGATGGCTAAGCTCCCAGTGATTTTAGGCAATC  
TAGACATTACAATTGATAATGTTTCTCAGACTCCCTAATTATGTTAATTCATCATACATTCCCACAAA  
ACAATTTGAAACCTGCAGTAAACTCCCATCACGTTTGAAGTGGAGGAATTTGTGCCCTGCATACAAAA  
CACACTCAGCCTTACACCATCTACACCAATCACCTTTACGTTTATCCTAAGTACTTGAAATACGACAGTC  
AGAAGTCTTTTGCCAAGGCTAGAAATATTGCGATTTGCATTGAATTCAAAGATTTCAGATGAGGAAGACTC  
TCAGCCCCCTTAAGTGCATTTATGGCAGACCTGGTGGGCCAGTTTTCAAGAAGCGCCTTTGCTGCAGTT  
TTACACCATCACCAAAACCCAGAATTTTATGATGAGATTAATAAGAGTTGCCACTCAGCTGCATGAAA  
AGCACCACCTGTTGCTCACATTCTCCATGTCAGCTGTGACAACCTCAAGTAAAGGAAGCAGGAAGAAGAG  
GGATGTCGTTGAAACCAAGTTGGCTACTCCTGGCTTCCCCTCCTGAAAGACGGAAGGTTGGTGACAAGC  
GAGCAGCATCCCGGTCTCGGCAACCTTCTTCGGGCTATCTGGCTACCAGGAGCTTGGGATGGGCA  
GGCATTATGGTCCGAAATTAATGGGTAGATGGAGGCAAGCCACTGCTGAAAATTTCCACTCATCTGGT  
TTCTACAGTGTACTCAGGATCAGCATTACATAATTTTTTCCAGTACTGTCAGAAAACCGAATCTGGA  
GCCAAGCCTTAGGAAACGAACTTGTAAGTACCTTAAGAGTCTGCATGCGATGGAAGGCCACGTGATGA  
TCGCCTTCTTGCCCACTATCCTAAACCAGCTGTTCCGAGTCTCACCAGAGCCACACAGGAAGAAGTCGC  
GGTTAACGTGACTCGGGTCAATTATCATGTGGTTGCCAGTGCCATGAGGAAGGATTGGAGAGCCACTTG  
AGGTCAATGTTAAGTACGCGTATAAGGCTGAGCCATATGTTGCCTCTGAATACAAGACAGTGCATGAAG  
AACTGACCAATCCATGACCACGATTCTCAAGCCTTCTGCCGATTTCTCACCAGCAACAACTACTGAA  
GTACTCATGGTTTTCTTGTGATGACTGATCAAATCTATGGCTCAGCATTGATAGAGAAGTCCAAAGTT  
AAGTTGCTGCGAAACAGAGATTTCTGCATCCTATCATCATGCAGTGGAAACCGTTGTAATATGCTGA  
TGCCACATCACTCAGAAGTTTCGAGATAATCCAGAGGCATCTAAGAACGCGAATCAGTCCCTGCTGT  
CTTCATCAAGAGATGTTTACCTTACATGGACAGGGCTTTGTCTCAAGCAGATCAACAACCTACATTAGC  
TGTTTTGCTCCTGGAGACCCAAAGACCCTTTGAATACAAGTTTGAATTTCTCCGTGTAGTGTGAACC  
ATGAACATTATATCCGTTGAACTTACCAATGCCATTTGAAAAGGCAGGATTCAAAGATACCAAGACCT  
CCAGCTTGACTACTCATTAAACAGATGAGTTCTGCAGAAACCACTTCTTGGTGGGACTGTTACTGAGGGAG  
GTGGGGACAGCCCTCCAGGAGTCCGGGAGGTCCTGATCGCCATCAGTGTGCTCAAGAACCTGCTGA  
TAAAGCATTCTTTGATGACAGATATGCTTCAAGGAGCCATCAGGCAAGGATAGCCACCCTTACCTGCC  
TCTGTTTGGTCTGCTGATTGAAAACGTCCAGCGGATCAATGTGAGGGATGTGTCACCCTTCCCTGTGAAC  
GCGGGCATGACTGTGAAGGATGAATCCCTGGCTCTACCAGCTGTGAATCCGCTGGTGACGCCGAGAAGG  
GAAGCACCTGGACAACAGCCTGCACAAGGACCTGCTGGGCGCCATCTCCGGCATTGCTTCTCCATATAC  
AACCTCAACTCCAAACATCAACAGTGTGAGAAATGCTGATTTCGAGAGGATCTCTCATAAGCACAGATTTCG  
GGTAACAGCCTTCCAGAAAGGAATAGTGAGAAGAGCAATCCCTGGATAAGCACCAACAAAGTAGCACAT  
TGGGAAATTCGTTGGTTCGCTGTGATAAATGACCAGTCTGAGATTAAGAGCCTACTGATGTGTTTCT  
CTACATCTTAAAGAGCATGTCTGATGATGCTTTGTTTACATATTGGAACAAGGCTTCAACATCTGAACTT  
ATGGATTTTTTACAATATCTGAAGTCTGCCTGCACCAGTTCAGTACATGGGGAAGCGATACATAGCCA  
GAACAGGAATGATGCATGCCAGATTGCAGCAGCTGGGCAGCCTGGATAACTCTCTCACTTTTAAACACAG  
CTATGGCCACTCGGACGCAGATGTTCTGCACCAGTCACTTACTTGAAGCCAACATTGCTACTGAGGTTTGC  
CTGACAGCTCTGGACACGCTTTCTCTATTTACATTGGCGTTTAAAGAACCAGCTCCTGGCCGACCATGGAC  
ATAATCTCTCATGAAAAAGTTTTTGTGCTACCTGTGTTTTCTTCAAAAACATCAGTCTGAAACGGC  
TTTAAAAAATGTCTTCACTGCCTTAAGGTCCTTAATTTATAAGTTTCCCTCAACATTCTATGAAGGGAGA  
GCGGACATGTGTGCGGCTCTGTGTTACGAGATTCTCAAGTGTGTAACCTCAAGCTGAGCTCCATCAGGA  
CGGAGGCCTCCCAGCTGCTCTACTTCTGATGAGGAACAACCTTTGATTACTGGAAGAAGTCTTTTGT  
CCGGACACATTTGCAAGTATCATATCTGTCAGCCAGCTGATAGCAGACGTTGTTGGCATTGGGGGAACC  
AGATTCCAGCAGTCCCTGTCCATCATCAACAACCTGTGCCAACAGTGACCGGCTTATTAAGCACACCAGCT  
TCTCCTGATGTGAAGGACTTAACCAAAAGGATACGCACGGTGCTAATGGCCACCGCCAGATGAAGGA  
GCATGAGAACGACCCAGAGATGCTGGTGGACCTCCAGTACAGCCTGGCCAAATCCTATGCCAGCAGGCC  
GAGCTCAGGAAGACGTGGCTCGACAGCATGGCCAGGATCCATGTCAAAAATGGCGATCTCTCAGAGGCAG  
CAATGTGCTATGTCCACGTAACAGCCCTAGTGGCAGAATATCTCACACGGAAAGAAGCAGTCCAGTGGGA  
GCCGCCCTTCTCCCCACAGCCATAGCGCCTGCCTGAGGAGGAGCCGGGGAGGCGTGTTAGACAAGGA  
TGCACCGCCTCAGGGTCATTACCCAAACATCGACGAGGAGGCTCCATGATGGAAGACGTGGGGATGC

AGGATGTCCATTTCAACGAGGATGTGCTGATGGAGCTCCTTGAGCAGTGCGCAGATGGACTCTGGAAGC  
CGAGCGCTACGAGCTCATCGCCGACATCTACAACTTATCATCCCCATTTATGAGAAGCGGAGGGATTTT  
GAGAGGCTGGCCCATCTGTATGACACGCTGCACCGGGCTACAGCAAAGTGACCGAGGTCATGCACTCGG  
GCCGCAGGCTTCTGGGGACCTACTTCGGGTAGCCTTCTTCGGGCAGGCAGCGCAATACCAGTTTACAGA  
CAGTGAAACAGATGTGGAGGGATTCTTTGAAGATGAAGATGGAAGGAGTATATTTACAAGGAACCCAAA  
CTCACACCGCTGTCGGAATTTCTCAGAGACTCCTTAACTGACTCGGATAAATTTGGTTCTGAAATG  
TCAAAATGATACAGGATTCTGGCAAGGTAACCCTAAGGATCTGGATTCTAAGTATGCATACATCCAGGT  
GACTCACGTCATCCCCTTCTTTGACGAAAAAGAGTTGCAAGAAAGGAAAACAGAGTTTGAGAGATCCCAC  
AACATCCGCCGCTTCATGTTTGAGATGCCATTTACGCAGACCGGGAAGAGGCAGGGCGGGGTGGAAGAGC  
AGTGCAAACGGCGCACCATCCTGACAGCCATACACTGCTTCCCTTATGTGAAGAAGCGCATCCCTGTCAT  
GTACCAGCACCACACTGACCTGAACCCATCGAGGTGGCCATTGACGAGATGAGTAAGAAGGTGGCGGAG  
CTCCGGCAGCTGTGCTCCTCGGCCGAGGTGGACATGATCAAACCTGCAGCTCAAACCCAGGGCAGCGTGA  
GTGTTCCAGGTCATGCTGGCCCACTAGCATATGCGCGAGCTTTCTTAGATGATACAAACACAAAGCGATA  
TCCTGACAATAAAGTGAAGCTGCTTAAGGAAGTTTTTCAGGCAATTTGTGGAAGCTTGCGGTCAAGCCTTA  
GCGGTAACGAACGTCTGATTAAGAAGACCAGCTCGAGTATCAGGAAGAAATGAAAGCCAACTACAGGG  
AAATGGCGAAGGAGCTTCTGAAATCATGCATGAGCAGCTGGGA

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG226443 representing NM\_001130048  
 Red=Cloning site Green=Tags(s)

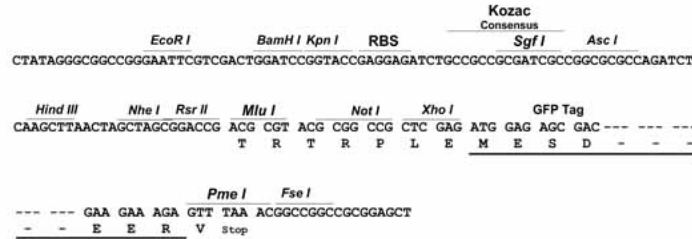
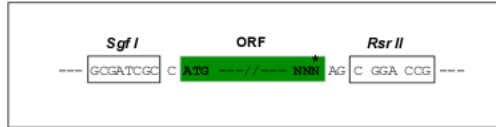
MQADKCRSTSSRSVKKELVIESPLQYKDAAQGEVEAESPGVPVPAKPKLIEPLDYENVIVQKKTQILNDCLR  
 EMLLFPYDDFQTAILRRQGRYICSTVPAKAEQSLFVTECIKTYNSDWHLVNYKYEDYSGEFRQLPNK  
 VVKLDKLPVHVYEVDEEDKDEDAASLGSQKGGITKHGWLKGNMNSAISVTMRSFKRRFFHLIQLGDGS  
 YNLNFYKDEKISKEPKGSIFLDSCMGVQNNKVRRAFELKMQDKSSYLLAADSEVEMEWEWITILNKILQ  
 LNFEAAMQEKRNGDSHEDDEQSKLEGSGLDSYLPKSAKSAEAEIKLSESRVKLFYLDPAQKLDLFS  
 SAEPEVKSFEEKFGKRILVKCNLDFNLQCCVAENEEGPTTNVEPFFVTLSLFDIKYNRKISADFHVDLN  
 HFSVRQMLATTSPALMNGSGQSPSVLKGILHEAAMQYPKQGFISVTCPPHDIFLVARIEKVLQGSITHCA  
 EPYMKSSDSSKVAQKVLKNAKQACQRLGQYRMPFAWAARTLFKADSGNLDKNARFSAIYRQDSNKLSDND  
 MLKLLADFRKPEKMAKLPVILGNLIDITIDNVSSDFPNYVNSSYIPTKQFETCSKTPITFEVEEFVPCIPK  
 HTQPYTYITNHLVYYPKYLKYDSQKSFARNAIACIEFKDSDEEDSQPLKCIYGRPGPVFTRSAFAAV  
 LHHHQNPEFYDEIKIELPTQLHEKHLLTFFHVSCDNSSKGGSTKKRDVETQVGYSWLPLLDKDRVVTS  
 EQHIPVSANLPSGYLGYQELGMGRHYGPEIKWVDGGKPLLKISTHLVSTVYTQDQHLHNFQYQCQKTESG  
 AQALGNELVKYLKSLHAMEGHVMI AFLPTILNQLFRVLTRATQEEVAVNVTRVLIHVVAQCHEEGLESHL  
 RSYVYKAYKAEPYVASEYKTVHEELTKSMTTILKPSADFLT SNKLLKYSWFFFDVLKISMAQHLIENSKV  
 KLLRNQRFPAASYHHA VETVVMMLMPHITQKFRDNPEASKNANHSLAVFIKRCFTFMDRGFVFKQINNYIS  
 CFAPGDPKTLFEYKFEFLRVVNCHEHYIPLNLPMPFGKGRIQRYQDLQLDYSLTDEF CRNHFLVGLLLRE  
 VGTALQEFREVRLIAISVLKNLLIKHSFDDRYASRSHQARIATLYLPLFGLLIENVQRINVRDVSPFPVN  
 AGMTVKDESLALPAVNPLVTPQKGSTLDNSLHKDLLGAI SGIASPYTTSTPNINSVRNADSRGSLISTDS  
 GNSLPERNSEKSNL DKHQSSSTL GNSVVRCDKLDQSEIKSLLMCFYIILKMSDDALFTYWNKASTSEL  
 MDFFTISEVCLHQFYMGKRYIARTGMMHARLQQLGSLDNSLTFNHSYGHSDADVLHQSLLEANIATEVC  
 LTALDTLSLFTLAFKNQLLADHGHNPLMKKVFVYLCFLQKHQSETALKNVFTALRSLIYKFPSTFYEGR  
 ADMCAALCYEILKCCNSKLS SIRTEASQLLYFLMRNFDYTGKKSFVRTHLQV IISVSQLIADVIGGT  
 RFQQLSIIINNCANSRDLIKHTSFSSDVKDLTKRIRTVLMATAQMKHEHNDPEMLVDLQYSLAKSYASTP  
 ELRKTWLD SMARIHVKNGDLSEAAMCYVHVTALVAEYLTRKEAVQWEPPLPHSHSACLRRSRGGVFRQG  
 CTAFRVITPNIDEEASMMEDVGMQDVHFNEDVLMELLEQCADGLWKAERYELIADIYKLIPIYKRRDF  
 ERLAHL YDTLHRAYSKVTEVMHSGRRL LGTYFRVAFFGQAAQYQFTDSETDVEGFFEDEDGKEYIYKEPK  
 LTPLSEISQRLKLYSDKFGSENVKMIQDSGKVNPKDLDSKYAYIQVTHVIPFFDEKELQERKTEFERSH  
 NIRRFMFEMPFTQTGKRQGGVEEQCKRRTILTAIHCFYVYKRIIPVYQHHTDLNPIEVAIDEMSKKVAE  
 LRQLCSSAEVDMIKLQLKLQGSVSVQVNAGPLAYARAFLLDDTNTKRYPDNKVKLLKEVFRQFVEACGQAL  
 AVNERLIKEDQLEYQEEMKANYREMAKELSEIMHEQLG

SGPTRRRLE - GFP Tag - V

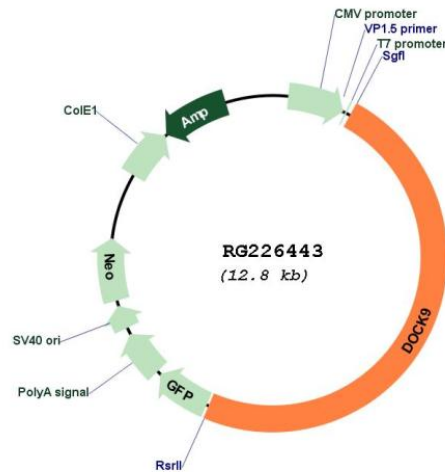
**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001130048

**ORF Size:** 6204 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.

<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>	<u><a href="#">NM_001130048.2</a></u>
<b>RefSeq Size:</b>	7661 bp
<b>RefSeq ORF:</b>	6207 bp
<b>Locus ID:</b>	23348
<b>UniProt ID:</b>	<u><a href="#">Q9BZ29</a></u>
<b>Cytogenetics:</b>	13q32.3
<b>Gene Summary:</b>	Guanine nucleotide-exchange factor (GEF) that activates CDC42 by exchanging bound GDP for free GTP. Overexpression induces filopodia formation.[UniProtKB/Swiss-Prot Function]