

## Product datasheet for **RG215640**

### **ROR2 (NM\_004560) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ROR2 (NM_004560) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ROR2
Synonyms:	BDB; BDB1; NTRKR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG215640 representing NM\_004560  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCCCGGGCTCGGCGTCCCAGCGCGCCGCTGCTGTGCATCCCGGCCGCTGGGCGGCCGCCGCGC  
 TTCTGCTCTCAGTGTCCCGACTTCAGGTGAAGTGGAGGTTCTGGATCCGAACGACCCTTTAGGACCCCT  
 TGATGGGCAGGACGGCCGATTCCAACCTCTGAAAGTTACTTTCTGAATTTCTGGAGCCAGTAAACAAT  
 ATCACCATTGTCCAAGGCCAGACGGCAATTCTGCACTGCAAGGTGGCAGGAAACCCACCCCTAACGTGC  
 GGTGGCTAAAGAATGATGCCCGGTGGTGCAGGAGCCGCGCGGATCATCATCCGGAAGACAGAATATGG  
 TTCAGACTGCGAATCCAGGACCTGGACACGACAGACTGGCTACTACCAGTGCCTGGCCACCAACGGG  
 ATGAAGACCATTACCGCACTGGCGTCTGTTTGTGCGGTGGTCCAACGCACAGCCAAATCATAACT  
 TTCAGGATGATTACCACGAGGATGGGTTCTGCCAGCCTTACCGGGGAATTGCCTGTGCACGCTTCATTGG  
 CAACCGGACCATTATGTGGACTCGCTTACAGTGCAGGGGAGATTGAAAACCGAATCACAGCGGCCTTC  
 ACCATGATCGGCACGTCTACGCACCTGTCCGACCAGTGTCTCACAGTTCGCCATCCCATCCTTCTGCCACT  
 TCGTGTTCCTCTGTGCGACGCGCGTCCCAGGACCCAAAGCCGCGTGAGCTGTGCCGCGACGAGTGCGA  
 GGTGCTGGAGAGCGACCTGTGCCCGCAGGAGTACACCATCGCCCGCTCCAACCCGCTCATCTCATGCGG  
 CTTACAGTGCCTAAGTGTGAGGCGCTGCCATGCCTGAGAGCCCCGACGCTGCCAAGTGCATGCGCATTG  
 GCATCCCAGCCGAGAGGCTGGGCGCTACCATCAGTGTATAACGGCTCAGGCATGGATTACAGAGGAAC  
 GGCAAGCACCACCAAGTCAGGCCACAGTGCAGCCGTGGGCCCTGCAGCACCCACAGCCACCACCTG  
 TCCAGCACAGACTTCCCTGAGCTTGGAGGGGGCACGCCCTACTGCCGGAACCCCGAGGCCAGATGGAGG  
 GCCCTGGTCTTTACGCAGAATAAAAACGTACGATGGAAGTGTGTGACGTACCTCGTGTAGTCCCCG  
 AGACAGCAGCAAGATGGGGATTCTGTACATCTTGGTCCCCAGCATCGCAATTCCTGTTGTCATCGCTTGC  
 CTTTTCTTCTGTTTGCATGTGCCGGAATAAGCAGAAGGCATCTGCGTCCACACCCGACGCGCGCAGC  
 TGATGGCCTCGCCAGCCAAGACATGGAATGCCCTCATTAAACCAGCACAAACAGGCCAAACTCAAAGA  
 GATCAGCTGTCTGCGGTGAGGTTTATGGAGGAGCTGGGAGAGGACCGGTTTGGGAAAGTCTACAAAGGT  
 CACCTGTTCGGCCCTGCCCGGGGAGCAGACCCAGGCTGTGGCCATCAAACGCTGAAGGACAAAGCGG  
 AGGGGCCCTGCGGGAGGAGTCCGGCATGAGGCTATGCTGCGAGCACGGCTGCAACACCCCAACGTCGT  
 CTGCTGTGGGCGTGGTGACCAAGGACCAGCCCTGAGCATGATCTTACGCTACTGTTCCGACGGCGAC  
 CTCACGAATTCCTGGTATGCGCTCGCCGCACTCGGACGTGGGCAGCACCGATGATGACCGCACGGTGA  
 AGTCCGCCCTGGAGCCCCGACTTCGTGCACCTTGTGGCACAGATCGCGCGGGGATGGAGTACCTATC  
 CAGCCACCACGTGGTTCACAAGGACCTGGCCACCCGCAATGTGCTAGTGTACGACAAGCTGAACGTGAAG  
 ATCTCAGACTTGGGCTCTTCCGAGAGGTGATGCCGCGGATTACTACAAGCTGTGGGAACTCGCTGC  
 TGCCATACCGCTGGATGGCCCCAGAGGCCATCATGTACGGCAAGTTCCTCATCGACTCAGACATCTGGTC  
 CTACGGTGTGGTCTGTGGGAGGCTTTCAGTACGGCTGCGACCCCTACTGCGGGTATTCCAACCAAGGAT  
 GTGGTGGAGATGATCCGGAACCGGCAGGTGCTGCCTGCCCGATGACTGTCCCGCTGGGTGTATGCC  
 TCATGATCGAGTGTGGAACGAGTTCACAGCCGGCGGCCCTTCAAGGACATCCACAGCCGGCTCCG  
 AGCCTGGGGCAACCTTTCCAACATAACAGCTCGGCGCAGACCTCGGGGCCAGCAACACCACGACAGACC  
 AGCTCCCTGAGCACCCAGCCAGTGAGCAATGTGAGCAACGCCCGTACGTGGGGCCCAAGCAGAAGGCC  
 CGCCCTCCACAGCCCAAGTTCATCCCATGAAGGGCCAGATCAGACCCATGGTCCCCCGCCGACGCT  
 CTACATCCCCGTCAACGGCTACCAGCCGGTCCCGCCTATGGGGCTACCTGCCAACTTCTACCCGGTG  
 CAGATCCCAATGCAGATGGCCCCGACGAGGTGCCTCCTCAGATGGTCCCCAAGCCAGCTCACACCACA  
 GTGGCAGTGGCTCCACCAGCACAGGCTACGTACCACGGCCCCCTCAACACATCCATGGCAGACAGGGC  
 AGCCCTGCTCTCAGAGGGCGCTGATGACACACAGAACGCCCCAGAAGATGGGGCCAGAGCACCGTGCAG  
 GAAGCAGAGGAGGAGGAAGGCTCTGTCCAGAGACTGAGCTGCTGGGGACTGTGACACTCTGCAGG  
 TGGACGAGGCCAAGTCCAGCTGGAAGCT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG215640 representing NM\_004560  
 Red=Cloning site Green=Tags(s)

MARGSALPRRPLLCIPAVWAAAALLLSVSRTSGEVEVLDPNDPLGPLDGQDGIPTLKGYFLNFLEPVNN  
 ITIVQGQTALHCKVAGNPPNVRWLKNDAPVVQEPRRIIRKTEYGSRLRIQDLDTDTGYQCVAATNG  
 MKTITATGVLVRLGPTHSPNHNFDQDYHEDGFCQPYRGIACARFIGNRTIYVDSLQMQGEIENRITAAF  
 TMIGTSTHLSQCSQFAIPSFCHFVPLCDARSRAPKPRELCRDECEVLESIDLCRQEYTIARSNPLILMR  
 LQLPKCEALPMPESPDAANCMRIGIPAERLGRYHQCYNGSGMDYRGTASTTKSGHQCPWALQHPHSHHL  
 SSTDFPELGGGHAYCRNPGGQMEGPWCFTQNKNVRMELCDVPSCSPRDSKMGILYILVPSIAIPLVIAC  
 LFFLVCMCRNKQKASASTPQRRQLMASPSQDMEMPLINQHKQAKLKEISLSAVRFMEELGEDRFKGYVYK  
 HLFGPAPGEQTQAVAIKTLKDKAEGPLREEFRHEAMLRARLQHPNVVCLLGVVTKDQPLSMIFSYSCHGD  
 LHEFLVMRSPHSDVGSTDDRTVKSALEPPDFVHLVAQIAAGMEYLSSHVVHKDLATRNLVYDKLNVK  
 ISDLGLFREYYAADYYKLLGNSLLPIRWMAPEAIMYGKFSIDSDIWSYGVVLEWVFSYGLQPYCGYSNQD  
 VVEMIRNRQVLPDPCPAWVYALMIECWNEFSPRRPRFKDIHSRLRAWGNLSNYNSAQTSGASNTTQT  
 SSLSTSPVSNVSNARYVGPQKAPFPQPFIPMKGQIRPMVPPQLYIPVNGYQVPYAGAYLPNFYYPV  
 QIPMQMAPQQVPPQMVPKPSSHSGSGSTSTGYVTTAPSNTSMADRAALLSEGADDTQNAPEDGAQSTVQ  
 EAEIEEGSVPETELLGDCDTLQVDEAQVQLEA

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

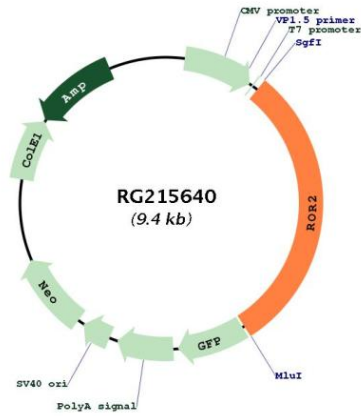


**ACCN:** NM\_004560

**ORF Size:** 2829 bp

<b>OTI Disclaimer:</b>	<p>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.</p> <p>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></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_004560.2</a>, <a href="#">NP_004551.2</a></p>
<b>RefSeq Size:</b>	<p>4091 bp</p>
<b>RefSeq ORF:</b>	<p>2832 bp</p>
<b>Locus ID:</b>	<p>4920</p>
<b>UniProt ID:</b>	<p><a href="#">Q01974</a></p>
<b>Cytogenetics:</b>	<p>9q22.31</p>
<b>Protein Families:</b>	<p>Druggable Genome, Protein Kinase, Transmembrane</p>
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a receptor protein tyrosine kinase and type I transmembrane protein that belongs to the ROR subfamily of cell surface receptors. The protein may be involved in the early formation of the chondrocytes and may be required for cartilage and growth plate development. Mutations in this gene can cause brachydactyly type B, a skeletal disorder characterized by hypoplasia/aplasia of distal phalanges and nails. In addition, mutations in this gene can cause the autosomal recessive form of Robinow syndrome, which is characterized by skeletal dysplasia with generalized limb bone shortening, segmental defects of the spine, brachydactyly, and a dysmorphic facial appearance. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG215640