

## Product datasheet for **RC402750**

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

#### **Product data:**

Product Type:	Mutant ORF Clones
Product Name:	ROR2 (NM_004560) Human Mutant ORF Clone
Mutation Description:	R397X
Affected Codon#:	397
Affected NT#:	1189
Nucleotide Mutation:	ROR2 Mutant (R397X), Myc-DDK-tagged ORF clone of Homo sapiens receptor tyrosine kinase-like orphan receptor 2 (ROR2) as transfection-ready DNA
Effect:	Robinow syndrome, autosomal recessive
Symbol:	ROR2
Synonyms:	BDB; BDB1; NTRKR2
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_004560
ORF Size:	1188 bp
Restriction Sites:	Sgfi-Mlul



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**ORF Nucleotide Sequence:**

>RC402750 representing NM\_004560  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCCCGGGCTCGGCCTCCCGCGCGGCCGCTGCTGTGCATCCCGGCCGCTGGGCGCCGCCCGCC  
 TTCTGCTCTCAGTGTCCCGACTTCAGGTGAAGTGGAGGTTCTGGATCCGAACGACCCTTAGGACCCCT  
 TGATGGCAGGACGGCCGATTCCAACCTCTGAAAGTTACTTTCTGAATTTCTGGAGCCAGTAAACAAT  
 ATCACCATTGTCCAAGGCCAGACGGCAATTCTGCACTGCAAGGTGGCAGGAAACCCACCCCTAACGTGC  
 GGTGGCTAAAGAATGATGCCCGGTGGTGCAGGAGCCCGCGGGATCATCATCCGGAAGACAGAAATATGG  
 TTCAGACTGCGAATCCAGGACCTGGACACGACAGACTGGCTACTACCAGTGGTGGCCACCAACGGG  
 ATGAAGACCATTACGCCACTGGCGTCTGTTTGTGCGGCTGGGTCCAACGCACAGCCAAATCATAACT  
 TTCAGGATGATTACCACGAGGATGGGTTCTGCCAGCCTTACCGGGGAATTGCCTGTGCACGCTTCATTGG  
 CAACCGGACCATTTATGTGGACTCGCTTACAGATGCAGGGGAGATTGAAAACCGAATCACAGCGGCCTTC  
 ACCATGATCGGCACGTCTACGCACCTGTCCGACCAGTGTCTACAGTTCGCCATCCCATCCTTCTGCCACT  
 TCGTGTTCCTCTGTGCGACGCGCGCTCCCGGACACCAAGCCCGGTGAGCTGTGCCGCGACGAGTGCGA  
 GGTGCTGGAGAGCGACCTGTGCCGCCAGGAGTACACCATCGCCCGCTCCAACCCGCTCATCCTCATGCGG  
 CTTAGCTGCCAAGTGTGAGGCGCTGCCATGCCTGAGAGCCCCGACGCTGCCAACTGCATGCGCATTG  
 GCATCCAGCCGAGAGGCTGGGCGCTACCATCAGTGTATAACGGCTCAGGCATGGATTACAGAGGAAC  
 GGCAAGCACCAAGTCAAGCCACAGTGCAGCCGTTGGGCCCTGCAGCACCCACAGCCACCACTG  
 TCCAGCACAGACTTCCCTGAGCTTGGAGGGGGCACGCCTACTGCCGGAACCCCGGAGGCCAGATGGAGG  
 GCCCTGTGTCTTACGCAGAATAAAAACGTACGCATGGAAGTGTGTGACGTACCCTCGTGTAGTCCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

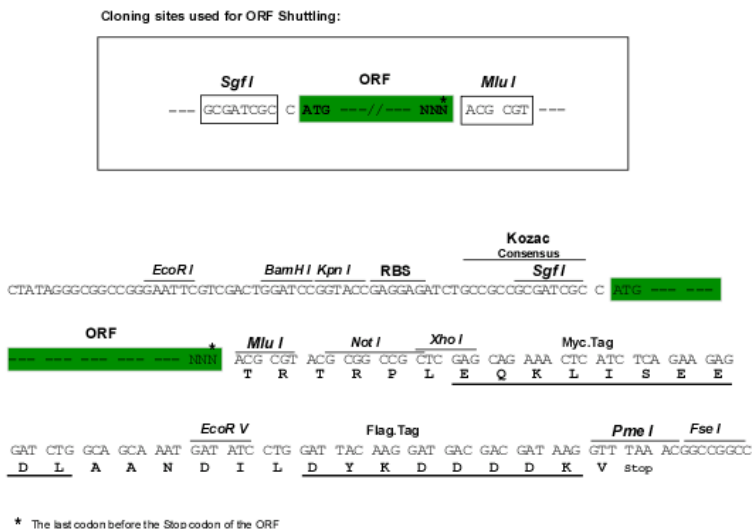
>RC402750 representing NM\_004560  
 Red=Cloning site Green=Tags(s)

MARGSALPRRPLLCIPAVWAAAALLLSVSRTSGEVEVLDPNDPLGPLDGQDGP IPTLKGYFLNFLEPVNN  
 ITIVQQQTAILHCKVAGNPPPNVRWLKNDAPVVQEPRRIIRKTEYGSRLRIQDLDTTDTGYYQCVATNG  
 MKTITATGVLVRLGPTHSPNHNFDQDYHEDGFCQPYRGIACARFIGNRTIYVDSLQMQGEIENRITAAF  
 TMIGTSTHLSQCSQFAIPSFCHFVPLCDARSRTPKPRELCRDECEVLES DLCRQEYTIARSNPLILMR  
 LQLPKCEALPMPESPDAANCMRIGIPAERLGRYHQCYNGSGMDYRGTASTTKSGHQCPWALQPHSHHL  
 SSTDFPELGGGHAYCRNPGGQMEGPWCFTQKNVMELCDVPSCSP

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**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:**

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).

**RefSeq:**

[NP\\_004551](#)

**RefSeq Size:**

1188 bp

**RefSeq ORF:**

2832 bp

**Locus ID:**

4920

**Cytogenetics:**

9q22.31

**Protein Families:**

Druggable Genome, Protein Kinase, Transmembrane

**MW:**

43.6 kDa

**Gene Summary:**

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]