

Product datasheet for **RC402756**

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:	Y755X
Affected Codon#:	755
Affected NT#:	2265
Nucleotide Mutation:	ROR2 Mutant (Y755X), Myc-DDK-tagged ORF clone of Homo sapiens receptor tyrosine kinase-like orphan receptor 2 (ROR2) as transfection-ready DNA
Effect:	Brachydactyly, type B
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:	2262 bp
Restriction Sites:	Sgfl-Mlul



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ORF Nucleotide Sequence:

>RC402756 representing NM_004560
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCCGGGGCTCGGCCTCCCGGGCGGCCGCTGCTGTGCATCCCGGCCGCTGGGCGCCGCCCGCC
 TTCTGCTCTCAGTGTCCTCGACTTCAGGTGAAGTGAGGTTCTGGATCCGAACGACCCCTTAGGACCCCT
 TGATGGCAGGACGGCCGATTCCAACCTCTGAAAGTTACTTTCTGAATTTCTGGAGCCAGTAAACAAT
 ATCACCATTGTCCAAGGCCAGACGGCAATTCTGCACTGCAAGGTGGCAGGAAACCCACCCCTAACGTGC
 GGTGGCTAAAGAATGATGCCCGGTGGTGCAGGAGCCCGGGGATCATCATCCGAAGACAGAATATGG
 TTCAGACTGCGAATCCAGGACTGGACACGACAGACTGGCTACTACCAGTGCCTGGCCACCAACGGG
 ATGAAGACCATTACCGCACTGGCGTCTGTTTGTGCGGCTGGGTCCAACGCACAGCCCAATCATAACT
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 CAACCGGACCATTATGTGGACTCGCTTACAGATGCAGGGGAGATTGAAAACCGAATCACAGCGGCCTTC
 ACCATGATCGGCACGTCTACGCACCTGTCCGACCAAGTGTACAGTTCGCCATCCCATCCTTCTGCCACT
 TCGTGTTCCTCTGTGCGACGCGCGCTCCCGGACACCAAGCCCGGTGAGCTGTGCCGCGACGAGTGCGA
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 CTTAGCTGCCAAGTGTGAGGCGCTGCCATGCCTGAGAGCCCGACGCTGCCAAGTGCATGCGCATTG
 GCATCCAGCCGAGAGGCTGGGCGCTACCATCAGTGTATAACGGCTCAGGCATGGATTACAGAGGAAC
 GGCAAGCACCACCAAGTCAAGCCACAGTGCAGCCGTGGGCCCTGCAGCACCCACAGCCACCACTG
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 CTTTTCTTCTGGTTTGCATGTGCCGAATAAGCAGAAGGCATCTGCGTCCACACCGCAGCGCGACAGC
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 GATCAGCCTGTCTGCGGTGAGGTTTATGGAGGAGCTGGGAGAGGACCGGTTTGGGAAAGTCTACAAAGT
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 AGGGGCCCTGCGGGAGGAGTTCGGCATGAGGCTATGCTGCGAGCACGGCTGCAACACCCCAACGTCGT
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 CTCCACGAATTCCTGGTATGCGCTCGCCGCACTCGGACGTGGGACGACCGATGATGACCCACGGTGA
 AGTCCGCCCTGGAGCCCCCGACTTCGTGCACCTTGTGGCACAGATCGCGGCGGGATGGAGTACCTATC
 CAGCCACCACGTGGTTACAAGGACCTGGCCACCCGCAATGTGCTAGTGTACGACAAGCTGAACGTGAAG
 ATCTCAGACTTGGGCTCTTCCGAGAGGTGTATGCCGCCGATTACTACAAGTGTGGGAACTCGCTGC
 TGCCTATCCGCTGGATGGCCCCAGAGGCCATCATGTACGGCAAGTTCTCCATCGACTCAGACATCTGGTC
 CTACGGTGTGGTCTGTGGGAGGCTTTCAGCTACGGCTGCAGCCCTACTGCGGGTACTCCAACCAGGAT
 GTGGTGGAGATGATCCGAACCGGCAGGTGTGCCTTGCCCCGATGACTGTCCCGCTGGGTGTATGCC
 TCATGATCGAGTGTGGAACGAGTTCCCAGCCGGCGGCCCGCTTCAAGGACATCCACAGCCGGCTCCG
 AGCCTGGGGCAACCTTTCCAAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402756 representing NM_004560
 Red=Cloning site Green=Tags(s)

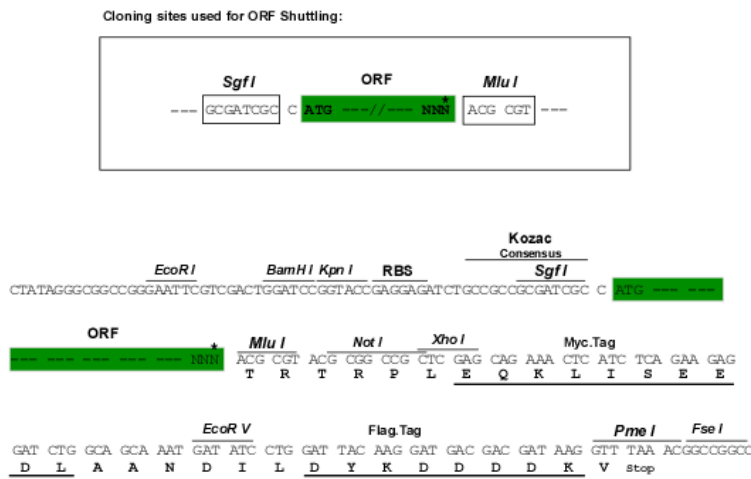
MARGSALPRRPLLCPAVWAAAALLLSVSRTSGEVEVLDPNPLGGLDGGDGIPTLKGYFLNFLEPVNN
 ITIVQGQTAILHCKVAGNPPPNVRWLKNDAPVVQEPRIIRKTEYGSRLRIQDLDTDTGYQC
 VATNGMKTITATGVLVRLGPTHSPNHFQDDYHEDGFCQPYRGIACARFIGNRTIYVDSLQMQGEIENRITA
 AFTMIGTSTHLSQCSQFAIPSFCHFVFLPCDARSRTPKPRELCRDECEVLES
 DLCRQEYTIARSNPLILMR LQLPKCEALPMPESPDAANCMRIGIPAERLGRYHQCYNGSGMDYRGTASTTKSGHQ
 CQPWALQPHSHHL SSTDPELGGGHAYCRNPGGQMEGPWCFTQKNV
 RMELCDVPSCSPRDSKMGILYILVPSIAIPLVIAC LFFLVCMCRNKQKASASTP
 QRRQLMASPSQDMEMPLINQHKQAKLKEISLSAVRFMEELGEDRFKGVYK
 GHLFGPAPGEQTQAVAIKTLKDKAEGPLREEFRHEAMLRARLQHPNVVCLL
 GVVTKDQPLSMIFSYCSHGDLHEFLVMRSPHSDVGSTDDRTVKS
 ALEPPDFVHLVAQIAAGMEYLSHHVVKDLATRNVLVYDKLNVK
 ISDLGLFREYYAADYYKLLGNSLLPIRWMAPEAIMYGKFSIDSDIWSYGVV
 LWEVFSYGLQPYCYGYSNQDVEMIRNRQVLPDPCPAWVYALMIECWNEF
 PSRRRPFKDIHSRLRAWGNLSN

SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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 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: 2262 bp

RefSeq ORF: 2832 bp

Locus ID: 4920

Cytogenetics: 9q22.31

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

MW: 82.9 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]