

Product datasheet for **RC402749**

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:	R366W
Affected Codon#:	366
Affected NT#:	1096
Nucleotide Mutation:	ROR2 Mutant (R366W), 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:	2829 bp
Restriction Sites:	Sgfl-Mlul



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ORF Nucleotide Sequence:

>RC402749 representing NM_004560
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCGGGGCTCGGCCTCCCGGGCGGCCGCTGCTGTGCATCCCGGCCGCTGGGCGCCGCCCGCC
 TTCTGCTCTCAGTGTCCCGACTTCAGGTGAAGTGGAGGTTCTGGATCCGAACGACCCTTTAGGACCCCT
 TGATGGCAGGACGGCCGATTCCAACCTCTGAAAGTTACTTTCTGAATTTCTGGAGCCAGTAAACAAT
 ATCACCATTGTCCAAGGCCAGACGGCAATTCTGCACTGCAAGGTGGCAGGAAACCCACCCCTAACGTGC
 GGTGGCTAAAGAATGATGCCCGGTGGTGCAGGAGCCCGGGGATCATCATCCGGAAGACAGAATATGG
 TTCAGACTGCGAATCCAGGACTGGACACGACAGACTGGCTACTACCAGTGCCTGGCCACCAACGGG
 ATGAAGACCATTACCGCCACTGGCGTCTGTTTGTGCGGCTGGGTCCAACGCACAGCCCAATCATAACT
 TTCAGGATGATTACCACGAGGATGGGTTCTGCCAGCCTTACCGGGGAATTGCCTGTGCACGCTTCATTGG
 CAACCGGACCATTATGTGGACTCGCTTACAGATGCAGGGGAGATTGAAAACCGAATCACAGCGGCCTTC
 ACCATGATCGGCACGTCTACGCACCTGTCCGACCAGTGTCTACAGTTCGCCATCCCATCCTTCTGCCACT
 TCGTGTTCCTCTGTGCGACGCGCGCTCCCGGACACCAAGCCGCGTGAGCTGTGCCGCGACGAGTGCGA
 GGTGCTGGAGAGCGACCTGTGCCGCCAGGAGTACACCATCGCCCGCTCCAACCCGCTCATCCTCATGCGG
 CTTAGCTGCCAAGTGTGAGGCGCTGCCATGCCTGAGAGCCCCGACGCTGCCAAGTGCATGCGCATTG
 GCATCCAGCCGAGAGGCTGGGCGCTACCATCAGTGTATAACGGCTCAGGCATGGATTACAGAGGAAC
 GGCAAGCACCAAGTCAAGCCACAGTGCAGCCGTTGGGCCCTGCAGCACCCACAGCCACCACTG
 TCCAGCACAGACTTCCCTGAGCTTGGAGGGGGCACGCCTACTGCTGGAACCCCGGAGGCCAGATGGAGG
 GCCCTGGTGTCTTACGCAGAATAAAAACGTACGCATGGAAGTGTGTGACGTACCTCGTGTAGTCCCGG
 AGACAGCAGCAAGATGGGATTCTGTACATCTTGGTCCCAGCATCGCAATTCCTGCTGTCATCGCTTGC
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 GATCAGCCTGTCTGCGGTGAGGTTTATGGAGGAGCTGGGAGAGGACCGGTTTGGGAAAGTCTACAAGGT
 CACCTGTTCCGCCCTGCCCGGGGAGCAGACCAGGCTGTGGCCATCAAACCGTGAAGGACAAAGCGG
 AGGGGCCCTGCGGGAGGAGTTCGGCATGAGGCTATGCTGCGAGCACGGCTGCAACACCCCAACGTCGT
 CTGCTGCTGGGCGTGGTGACCAAGGACCAGCCCTGAGCATGATCTTACGCTACTGTTCCACGCGGAC
 CTCCACGAATTCCTGGTATGCGCTCGCCGCACTCGGAGTGGGACGACCGATGATGACCGCACGGTGA
 AGTCCGCCCTGGAGCCCCGACTTCGTGCACCTTGTGGCACAGATCGCGGCGGGGATGGAGTACCTATC
 CAGCCACCACGTGGTTACAAGGACCTGGCCACCCGCAATGTGCTAGTGTACGACAAGCTGAACGTGAAG
 ATCTCAGACTTGGCCTCTTCCGAGAGGTGTATGCCGCCGATTACTACAAGCTGCTGGGAACTCGCTGC
 TGCCTATCCGCTGGATGGCCCCAGAGGCCATCATGTACGGCAAGTTCTCCATCGACTCAGACATCTGGTC
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 GTGGTGGAGATGATCCGGAACCGGCAGGTGTGCCTTGCCTGATGACTGTCCCGCTGGGTGTATGCC
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 CGCCCTTCCACAGCCCAAGTTCATCCCATGAAGGGCCAGATCAGACCCATGGTGCCTCCCGCCGACGT
 CTACGTCCCGTCAACGGCTACCAGCCGGTCCCGCCTATGGGCTTACCTGCCAACTTCTACCCGGTG
 CAGATCCCAATGCAGATGGCCCCGACGAGGTGCCTCCTCAGATGGTCCCAAGCCAGCTCACACCACA
 GTGGCAGTGGCTCCACCAGCACAGGCTACGTACCACGGCCCCCTCAACACATCCATGGCAGACAGGGC
 AGCCCTGCTCTCAGAGGGCGTGTGACACACAGAACGCCCAAGATGGGGCCAGAGACCGTGCAG
 GAAGCAGAGGAGGAGGAAGGCTCTGTCCAGAGACTGAGTGTGCTGGGGACTGTGACTCTGCAGG
 TGGACGAGGCCAAGTCCAGCTGGAAGCT

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402749 representing NM_004560
 Red=Cloning site Green=Tags(s)

MARGSALPRRPLLCPAVWAAAALLLSVSRTSGEVEVLDPNPLGGLDGGDGIPTLKGYFLNFLEPVNN
 ITIVQGQTALHCKVAGNPPPNVRWLKNDAPVVQEPRIIRKTEYGSRLRIQDLTDTTGYQC VATNG
 MKTITATGVL FVRLGPTHSPNHFQDDYHEDGFCQPYRGIACARFIGNRTIYVDSLQMQGEIENRITA AF
 TMIGTSTHLS DQCSQFAIPSFCHFVFLPCDARSRTPKPREL CRDECEVLESDLCRQEYTIARSNPLILMR
 LQLPKCEALPMPESPDAANCMRIGIPAERLGRYHQCYNGSGMDYRGTA STTKSGHQCPWALQPHSHHL
 SSTDFPELGGGHAYCWNPGGQMEGPWCFTQKNV RMELCDVPSCSPRDS SKMGILYILVPSIAIPLVIAC
 LFFLVCMCRNKQKASASTPQRRQLMASPSQDMEMPLINQHKA KLKEISLSAVRFMEELGEDRFKGVYKG
 HLFGPAPGEQTQAVAIKTLKDKAEGPLREEFRHEAMLRARLQHPNVVCLLGVVTKDQPLSMIFSYCSHG D
 LHEFLVMRSPHSDVGSTDDRTVKSALEPPDFVHLVAQIAAGMEYLSHHV VHKDLATRNVLVYDKLNVK
 ISDLGLFREYYAADYYKLLGNSLLPIRWMAPEAIMYGKFSIDSDIWSYGVVLEWVFSYGLQPYCGYSNQD
 VVEMIRNRQVLPDPCPAWVYALMIECWNEFPSRRRPFKDIHSRLRAWGNLSNYNSSAQTSGASNTTQT
 SSLSTSPVSNVSNARYVGPQKQAPFPQPQFIPMKGQIRMPVPPQLYVPVNGYQVPVAYGAYLPNFYPV
 QIPMQMAPQQVPPQMVPKPSSHHSGSGSTSTGYVTTAPSNTSMADRAALLSEGADDTQNAPEDGAQSTVQ
 EAEIEEEGSVPETELLGDCDTLQVDEAQVQLEA

SGPTRRRL**EQLISEEDLA**ANDILDYKDDDDKV

Restriction Sites:

SgfI-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 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: 2829 bp

RefSeq ORF: 2832 bp

Locus ID: 4920

Cytogenetics: 9q22.31

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

MW: 103.7 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]