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Product datasheet for RC402754

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:	W749X
Affected Codon#:	749
Affected NT#:	2247
Nucleotide Mutation:	ROR2 Mutant (W749X), 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:	2244 bp
Restriction Sites:	SgfI-MluI

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ORF Nucleotide Sequence:

>RC402754 representing NM_004560
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCCGGGGCTCGGCGCTCCCGCGGCGGCCGCTGCTGTGCATCCCGGCCGTCTGGGCGGCCGCCGCGC
TTCTGCTCTCAGTGTCCCGGACTTCAGGTGAAGTGGAGGTTCTGGATCCGAACGACCCTTTAGGACCCCT
TGATGGGCAGGACGGCCCGATTCCAACTCTGAAAGGTTACTTTCTGAATTTTCTGGAGCCAGTAAACAAT
ATCACCATTGTCCAAGGCCAGACGGCAATTCTGCACTGCAAGGTGGCAGGAAACCCACCCCCTAACGTGC
GGTGGCTAAAGAATGATGCCCCGGTGGTGCAGGAGCCGCGGCGGATCATCATCCGGAAGACAGAATATGG
TTCACGACTGCGAATCCAGGACCTGGACACGACAGACACTGGCTACTACCAGTGCGTGGCCACCAACGGG
ATGAAGACCATTACCGCCACTGGCGTCCTGTTTGTGCGGCTGGGTCCAACGCACAGCCCAAATCATAACT
TTCAGGATGATTACCACGAGGATGGGTTCTGCCAGCCTTACCGGGGAATTGCCTGTGCACGCTTCATTGG
CAACCGGACCATTTATGTGGACTCGCTTCAGATGCAGGGGGAGATTGAAAACCGAATCACAGCGGCCTTC
ACCATGATCGGCACGTCTACGCACCTGTCGGACCAGTGCTCACAGTTCGCCATCCCATCCTTCTGCCACT
TCGTGTTTCCTCTGTGCGACGCGCGCTCCCGGACACCCAAGCCGCGTGAGCTGTGCCGCGACGAGTGCGA
GGTGCTGGAGAGCGACCTGTGCCGCCAGGAGTACACCATCGCCCGCTCCAACCCGCTCATCCTCATGCGG
CTTCAGCTGCCCAAGTGTGAGGCGCTGCCCATGCCTGAGAGCCCCGACGCTGCCAACTGCATGCGCATTG
GCATCCCAGCCGAGAGGCTGGGCCGCTACCATCAGTGCTATAACGGCTCAGGCATGGATTACAGAGGAAC
GGCAAGCACCACCAAGTCAGGCCACCAGTGCCAGCCGTGGGCCCTGCAGCACCCCCACAGCCACCACCTG
TCCAGCACAGACTTCCCTGAGCTTGGAGGGGGGCACGCCTACTGCCGGAACCCCGGAGGCCAGATGGAGG
GCCCCTGGTGCTTTACGCAGAATAAAAACGTACGCATGGAACTGTGTGACGTACCCTCGTGTAGTCCCCG
AGACAGCAGCAAGATGGGGATTCTGTACATCTTGGTCCCCAGCATCGCAATTCCACTGGTCATCGCTTGC
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AGTCCGCCCTGGAGCCCCCCGACTTCGTGCACCTTGTGGCACAGATCGCGGCGGGGATGGAGTACCTATC
CAGCCACCACGTGGTTCACAAGGACCTGGCCACCCGCAATGTGCTAGTGTACGACAAGCTGAACGTGAAG
ATCTCAGACTTGGGCCTCTTCCGAGAGGTGTATGCCGCCGATTACTACAAGCTGCTGGGGAACTCGCTGC
TGCCTATCCGCTGGATGGCCCCAGAGGCCATCATGTACGGCAAGTTCTCCATCGACTCAGACATCTGGTC
CTACGGTGTGGTCCTGTGGGAGGTCTTCAGCTACGGCCTGCAGCCCTACTGCGGGTACTCCAACCAGGAT
GTGGTGGAGATGATCCGGAACCGGCAGGTGCTGCCTTGCCCCGATGACTGTCCCGCCTGGGTGTATGCCC
TCATGATCGAGTGCTGGAACGAGTTCCCCAGCCGGCGGCCCCGCTTCAAGGACATCCACAGCCGGCTCCG
AGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

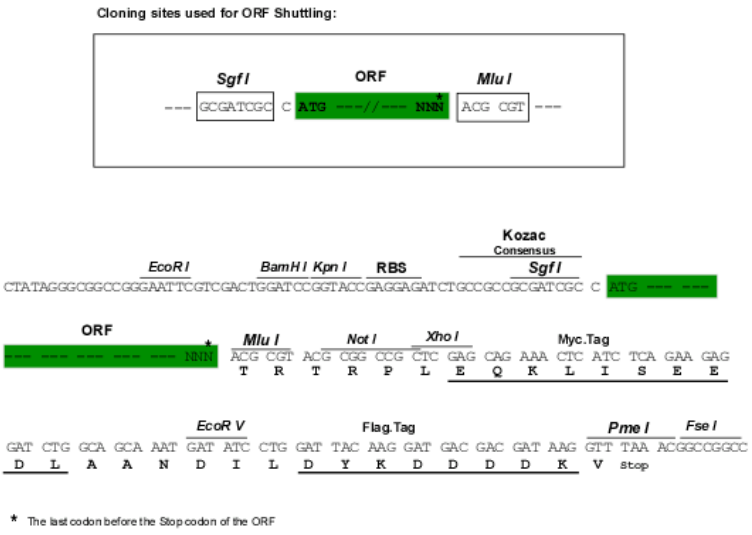
>RC402754 representing NM_004560
Red=Cloning site Green=Tags(s)

MARGSALPRRPLLCIPAVWAAAALLLSVSRTSGEVEVLDPNDPLGPLDGQDGPIPTLKGYFLNFLEPVNN
ITIVQGQTAILHCKVAGNPPPNVRWLKNDAPVVQEPRRIIIRKTEYGSRLRIQDLDTTDTGYYQCVATNG
MKTITATGVLFVRLGPTHSPNHNFQDDYHEDGFCQPYRGIACARFIGNRTIYVDSLQMQGEIENRITAAF
TMIGTSTHLSDQCSQFAIPSFCHFVFPLCDARSRTPKPRELCRDECEVLESDLCRQEYTIARSNPLILMR
LQLPKCEALPMPESPDAANCMRIGIPAERLGRYHQCYNGSGMDYRGTASTTKSGHQCQPWALQHPHSHHL
SSTDFPELGGGHAYCRNPGGQMEGPWCFTQNKNVRMELCDVPSCSPRDSSKMGILYILVPSIAIPLVIAC
LFFLVCMCRNKQKASASTPQRRQLMASPSQDMEMPLINQHKQAKLKEISLSAVRFMEELGEDRFGKVYKG
HLFGPAPGEQTQAVAIKTLKDKAEGPLREEFRHEAMLRARLQHPNVVCLLGVVTKDQPLSMIFSYCSHGD
LHEFLVMRSPHSDVGSTDDDRTVKSALEPPDFVHLVAQIAAGMEYLSSHHVVHKDLATRNVLVYDKLNVK
ISDLGLFREVYAADYYKLLGNSLLPIRWMAPEAIMYGKFSIDSDIWSYGVVLWEVFSYGLQPYCGYSNQD
VVEMIRNRQVLPCPDDCPAWVYALMIECWNEFPSRRPRFKDIHSRLRA

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

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: 2244 bp

RefSeq ORF: 2832 bp

Locus ID: 4920

Cytogenetics: 9q22.31

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

MW: 82.3 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]