

## Product datasheet for **RC402798**

### DDR2 (NM\_006182) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	DDR2 (NM_006182) Human Mutant ORF Clone
Mutation Description:	I726R
Affected Codon#:	726
Affected NT#:	2177
Nucleotide Mutation:	DDR2 Mutant (I726R), Myc-DDK-tagged ORF clone of Homo sapiens discoidin domain receptor tyrosine kinase 2 (DDR2), transcript variant 2 as transfection-ready DNA
Effect:	Spondylo-me-epiphysel dysplasi, shor limb-hnd ype
Symbol:	DDR2
Synonyms:	MIG20a; NTRKR3; TKT; TYRO10; WRCN
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_006182
ORF Size:	2565 bp
Restriction Sites:	Sgfl-Mlul



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**ORF Nucleotide Sequence:**

>RC402798 representing NM\_006182  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATCCTGATTCCAGAATGCTCTTGGTGTCTTCTGCTGCTGCCTATCTTGAGTTCTGCAAAAGCTC  
 AGGTTAATCCAGCTATATGCCGCTATCCTCTGGGCATGTCAGGAGGCCAGATTCCAGATGAGGACATCAC  
 AGCTTCCAGTCAGTGGTCAGAGTCCACAGCTGCCAAATATGGAAGGCTGGACTCAGAAGAAGGGGATGGA  
 GCCTGGTGCCTGAGATTCCAGTGAACCTGATGACCTGAAGGAGTTTCTGCAGATTGACTTGCACACCC  
 TCCATTTTATCACTCTGGTGGGACCCAGGGCGCCATGCAGGAGGTCATGGCATCGAGTTTGCCCCCAT  
 GTACAAGATCAATTACAGTCGGGATGGCACTCGCTGGATCTCTTGGCGGAACCGTCATGGGAAACAGGTG  
 CTGGATGGAAATAGTAACCCCTATGACATTTTCTAAAGGACTGGAGCCGCCATTGTAGCCAGATTTG  
 TCCGGTTCATTCCAGTCACCGACCACTCCATGAATGTGTGTATGAGAGTGGAGCTTTACGGCTGTGTCTG  
 GCTAGATGGCTTGGTGTCTTACAATGCTCCAGCTGGGCAGCAGTTTGTACTCCCTGGAGTTCCATCATT  
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 ATGGTGTGTCTGGCCTGGACGATTTACCCAGACCCATGAATACCACGTGTGGCCCGGCTATGACTATGT  
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 CAACTCGACTTACGATCGCATCTTTCCCCTTGGCCCTGACTACCAGGAGCCATCCAGGCTGATACGAAAA  
 CTCCCAGAAATTTGCTCCAGGGGAGGAGGAGTCAAGGCTGCAGCGGTGTTGTGAAGCCAGTCCAGCCCAGT  
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 TCATCCAAGAAATCCACCTTCTGCTCTTCAACAAGGCGACGAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
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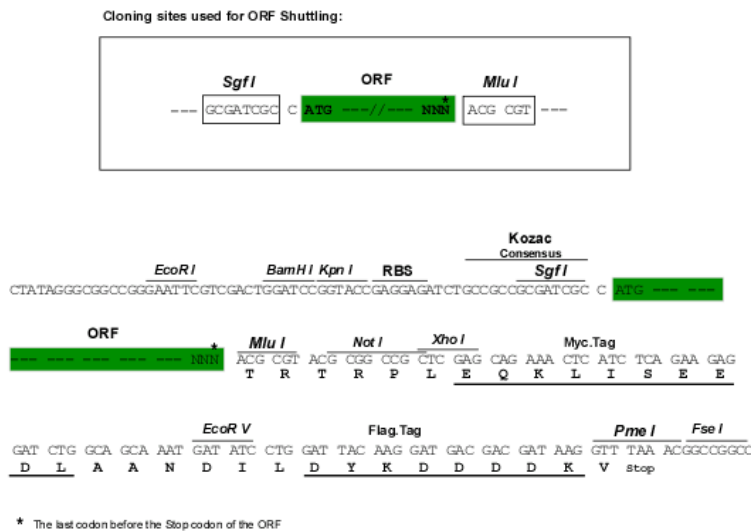
**Protein Sequence:** >RC402798 representing NM\_006182  
 Red=Cloning site Green=Tags(s)

MILIPRMLLVLFLLLPILSSAKAVNPAICRYPLGMSGGQIPDEDITASSQWSESTAACYGRDL DSEEGDG  
 AWCPEIPVEPDDLKEFLQIDLHLHFITLVGTQGRHAGGHGIEFAPMYKINYSRDGTRWISWRNRHGKQV  
 LDGNSNPYDIFLKDLEPPIVARFVRFIPVTDHSMNVCMRVELYGCWLDGLVSYNAPAGQQFVLPGGSI I  
 YLND SVYD GAVGYSMTEGLGQLTDGVSGLDDFTQTHEYHVWPGYDYVWGRNESATNGYIEIMFEFDRIRN  
 FTTMKVHCNMF AKGVKIFKEVQCYFRSEASEWEPNAISFPLVLDVNP SARFVTYVPLHHRMASAIKCQY  
 HFADTWMFSEITFQSDAAMYNNSEALPTSPMAPTTYDPMLKVDDSNTRILIGCLVAIIFILLAIIV IIL  
 WRQFWQKMLEKASRRMLDDEMTVSLSLPSDSSMFNNR SSSPSEQGSNSTYDRIFLRPDYQEPSRLIRK  
 LPEFAPGEEESGCSGVVQPVQPSGPEGVPHYAEADIVNLQGVTTGNTYSVPAVTMDLLSGKDVAVEEFPR  
 KLLTFKEKLGEGQFGEVHLCEVEGMEKFKDKDFALDVSANQPVLVAVKMLRADANKNARNDLFKEIKIMS  
 RLKDPNIHLLAVCITDDPLCMITEYMENGLNQFLSRHEPPNSSSSDVRTVSYTNLKFMATQIASGMKY  
 LSSLNFVHRDLATRNCLVGKNYTIKRAFDGMSRNL YSGDYRYIQGRAVLP IRWMSWESILLGKFTTASDV  
 WAFGVTLWETFTFCQEQPYSQLSDEQVIENTGEFFRDQGRQTYLPQPAICPDSVYKMLMLSCWRRDTKNRP  
 SFQEIHLLLLLQQGDE

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**  
**Cloning Scheme:**

SgfI-MluI



**OTI Disclaimer:** 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\\_006173](#)

RefSeq Size: 2565 bp

RefSeq ORF: 2568 bp

Locus ID: 4921

Cytogenetics: 1q23.3

Domains: F5\_F8\_type\_C, pkinase, TyrKc, S\_TKc

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

MW: 94.1 kDa

**Gene Summary:** This gene encodes a member of the discoidin domain receptor subclass of the receptor tyrosine kinase (RTKs) protein family. RTKs play a key role in the communication of cells with their microenvironment. The encoded protein is a collagen-induced receptor that activates signal transduction pathways involved in cell adhesion, proliferation, and extracellular matrix remodeling. This protein is expressed in numerous cell types and may also be involved in wound repair and regulate tumor growth and invasiveness. Mutations in this gene are the cause of short limb-hand type spondylometaepiphyseal dysplasia. [provided by RefSeq, Aug 2017]