OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC323423

DDR2 (NM_006182) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DDR2 (NM_006182) Human Untagged Clone
Tag:	Tag Free
Symbol:	DDR2
Synonyms:	MIG20a; NTRKR3; TKT; TYRO10; WRCN
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC323423 sequence for NM_006182 edited (data generated by NextGen Sequencing)

ATGATCCTGATTCCCAGAATGCTCTTGGTGCTGTTCCTGCTGCTGCCTATCTTGAGTTCT
GCAAAAGCTCAGGTTAATCCAGCTATATGCCGCTATCCTCTGGGCATGTCAGGAGGCCAG
ATTCCAGATGAGGACATCACAGCTTCCAGTCAGTGGTCAGAGTCCACAGCTGCCAAATAT
GGAAGGCTGGACTCAGAAGAAGGGGATGGAGCCTGGTGCCCTGAGATTCCAGTGGAACCT
GATGACCTGAAGGAGTTTCTGCAGATTGACTTGCACACCCTCCATTTTATCACTCTGGTG
GGGACCCAGGGGCGCCATGCAGGAGGTCATGGCATCGAGTTTGCCCCCATGTACAAGATC
AATTACAGTCGGGATGGCACTCGCTGGATCTCTTGGCGGAACCGTCATGGGAAACAGGTG
CTGGATGGAAATAGTAACCCCTATGACATTTTCCTAAAGGACTTGGAGCCGCCCATTGTA
GCCAGATTTGTCCGGTTCATTCCAGTCACCGACCACTCCATGAATGTGTGTATGAGAGTG
GAGCTTTACGGCTGTGTCTGGCTAGATGGCTTGGTGTCTTACAATGCTCCAGCTGGGCAG
CAGTTTGTACTCCCTGGAGGTTCCATCATTTATCTGAATGATTCTGTCTATGATGGAGCT
GTTGGATACAGCATGACAGAAGGGCTAGGCCAATTGACCGATGGTGTGTCTGGCCTGGAC
GATTTCACCCAGACCCATGAATACCACGTGTGGCCCGGCTATGACTATGTGGGCTGGCGG
AACGAGAGTGCCACCAATGGCTACATTGAGATCATGTTTGAATTTGACCGCATCAGGAAT
TTCACTACCATGAAGGTCCACTGCAACAACATGTTTGCTAAAGGTGTGAAGATCTTTAAG
GAGGTACAGTGCTACTTCCGCTCTGAAGCCAGTGAGTGGGAACCTAATGCCATTTCCTTC
CCCCTTGTCCTGGATGACGTCAACCCCAGTGCTCGGTTTGTCACGGTGCCTCTCCACCAC
CGAATGGCCAGTGCCATCAAGTGTCAATACCATTTTGCAGATACCTGGATGATGTTCAGT
GAGATCACCTTCCAATCAGATGCTGCAATGTACAACAACTCTGAAGCCCTGCCCACCTCT
CCTATGGCACCCACAACCTATGATCCAATGCTTAAAGTTGATGACAGCAACACTCGGATC
CTGATTGGCTGCTTGGTGGCCATCATCTTTATCCTCCTGGCCATCATTGTCATCATCCTG
TGGAGGCAGTTCTGGCAGAAAATGCTGGAGAAGGCTTCTCGGAGGATGCTGGATGATGAA
ATGACAGTCAGCCTTTCCCTGCCAAGTGATTCTAGCATGTTCAACAATAACCGCTCCTCA
TCACCTAGTGAACAAGGGTCCAACTCGACTTACGATCGCATCTTTCCCCTTCGCCCTGAC
TACCAGGAGCCATCCAGGCTGATACGAAAACTCCCAGAATTTGCTCCAGGGGAGGAGGAG
TCAGGCTGCAGCGGTGTTGTGAAGCCAGTCCAGCCCAGTGGCCCTGAGGGGGTGCCCCAC
TATGCAGAGGCTGACATAGTGAACCTCCAAGGAGTGACAGGAGGCAACACATACTCAGTG
CCTGCCGTCACCATGGACCTGCTCTCAGGAAAAGATGTGGCTGTGGAGGAGTTCCCCAGG
AAACTCCTAACTTTCAAAGAGAAGCTGGGAGAAGGACAGTTTGGGGAGGTTCATCTCTGT
GAAGTGGAGGGAATGGAAAAATTCAAAGACAAAGATTTTGCCCTAGATGTCAGTGCCAAC
CAGCCTGTCCTGGTGGCTGTGATGATGCTCCGAGCAGATGCCAACAAGAATGCCAGGAAT
GATTTTCTTAAGGAGATAAAGATCATGTCTCGGCTCAAGGACCCAAACATCATCCATCTA
TTAGCTGTGTGTATCACTGATGACCCTCTCTGTATGATCACTGAATACATGGAGAATGGA
GATCTCAATCAGTTTCTTTCCCGCCACGAGCCCCCTAATTCTTCCTCCAGCGATGTACGC
ACTGTCAGTTACACCAATCTGAAGTTTATGGCTACCCAAATTGCCTCTGGCATGAAGTAC
CTTTCCTCTCTTAATTTTGTTCACCGAGATCTGGCCACACGAAACTGTTTAGTGGGTAAG
AACTACACAATCAAGATAGCTGACTTTGGAATGAGCAGGAACCTGTACAGTGGTGACTAT
TACCGGATCCAGGGCCGGGCAGTGCTCCCTATCCGCTGGATGTCTTGGGAGAGTATCTTG
CTGGGCAAGTTCACTACAGCAAGTGATGTGTGGGCCTTTGGGGTTACTTTGTGGGAGACT
TTCACCTTTTGTCAAGAACAGCCCTATTCCCAGCTGTCAGATGAACAGGTTATTGAGAAT
ACTGGAGAGTTCTTCCGAGACCAAGGGAGGCAGACTTACCTCCCTCAACCAGCCATTTGT
CCTGACTCTGTGTATAAGCTGATGCTCAGCTGCTGGAGAAGAGATACGAAGAACCGTCCC
TCATTCCAAGAAATCCACCTTCTGCTCCTTCAACAAGGCGACGAGTGA

Clone variation with respect to NM_006182.2
1260 c=>g;1823 a=>t;1824 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_006182 unedited
CCCGCCGTCTCAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCATTTAGGTG
ACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCGCGAATTCGGCACGAGGTTTCACAACAAA
TTCTTCTTTTTGGGTTGGGGAAACGCAGTGGATTATAGCTCTGTTTTCTTCTTTCCAAAACTGTGCACCC
CTGGATGAAACCTCCATCAAGGGAGACCTACAAGTTGCCTGGGGTTCAGTGCTCTAGAAAGTTCCAAGGT
TTGTGGCTTGAATTATTCTAAAGAAGCTGAAATAATTGAAGAGAAGCAGAGGCCAGCTGTTTTTTGAGGG
ATCCTGCTCCACAGAGAAATGCTTCTGCCACCCCGTTGATACTTCCATTTCCAACACCCTTCTTTCTGAA
ATAATCCTGATTCCCAGAAGGCTCTGGGGGCTGTTCCGGCTGCTGCCTATCTTGAGTTCTGCAAAGCCTC
AGGTAATTCCGGCTTTATGCCCCTATCCTTGGGGCATGCAGGGAGGCAGAAATTCCGAAATAGGAACCCT
CACAGTCTCCCAGTCAGTGGTCAAGAGTCCAGCTGTGCCATATGGGAAGGGCGGGACTCAAAAAAAGGGA
TAGAGACCGGTGGCCTGAGATATCAGTGGGACCCGTGATGACTGTGAGAGATTTTTCACATTGTCTTGTG
CACACTCCACATAAACTCTGGTGGGGGAGACACAGGCGCCCTCCGCGAGGTGACGGGTCTAGTTTTCCCC
TGTGTACGATAATCTATCGCCGGATAGCGCACCTGGTGATCTTGCGGAAACGCATAGGGAACAAGTGCTG
GATGAGATGTATACCTATGACATTTTCTAAGACTGTGAGACGCCATTGACAATGTTCGGCATCTGCACCG
CCAACCTGATGTGGTCAATGAGCTACGCGTCGCGAAAGGCTGTTCAAGGTCAACTGAGCAAGAG

Kinase Domain Sequence:

>SC323423 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
TKAATGCAGGTGGAATTCAAGACAAAGATTTTGCCCTAGATGTCAGTGCCAACCAGCCTGTCCTGGTGGC
TGTGATGATGCTCCGAGCAGATGCCAACAAGAATGCCAGGAATGATTTTCTTAAGGAGATAAAGATCATG
TCTCGGCTCAAGGACCCAAACATCATCCATCTATTAGCTGTGTGTATCACTGATGACCCTCTCTGTATGA
TCACTGAATACATGGAGAATGGAGATCTCAATCAKTTTCTTTCCC

Restriction Sites: Please inquire

ACCN: NM_006182

Insert Size: 3100 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.

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).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_006182.2, NP_006173.2

RefSeq Size:	3172 bp
RefSeq ORF:	2568 bp
Locus ID:	4921
UniProt ID:	Q16832
Cytogenetics:	1q23.3
Domains:	F5_F8_type_C, pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
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 alos 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] Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1-4 encode the same isoform. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.