

Product datasheet for **MR210810**

Bicd2 (NM_001039180) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bicd2 (NM_001039180) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bicd2
Synonyms:	0610027D24Rik; 1110005D12Rik; AA408834; mKIAA0699
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR210810 representing NM_001039180
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCAGCTCAAAGAGCATTGTGCCAGGCACATACAAACCACAAGAAGGTGGCTGCTGATGGTGAGA
 GCCGGGAGGAGAGCCTGATCCAGGAGTCGGCCTCCAAGGAGCAGTACTAGTGCGGAAGGTGCTGGAGCT
 GCAGACAGAGCTGAAACAGCTGCCAACGTCCTCACCAACACCCAGTCTGAGAATGAGCGCCTCAGTCT
 GTGGCCAGGAGCTAAAAGAGATCAACCAGAATGTGGAGATCCAGCGTGGTCGCCTGCGGGATGACATCA
 AGGAGTACAAGTCCGGGAGGCCGCTACTTCAGGACTACTCAGAGCTGGAGGAGGAGAACATCAGCCT
 GCAGAAACAAGTGTCTGTGCTCAGGCAGAACAGGTGGAGTTTGAGGGCCTCAAGCATGAAATCAAGCGC
 CTGGAGGAGGAGACAGATACCTCAACAGCCAGCTAGAGGATGCCATCCGGCTTAAGGAGATCTCTGAAC
 GGCAGTTGGAGGAGGCGCTGGAGACACTGAAGACAGAGCGGGAGCAGAAGAACAACCTGCGCAAGGAGTT
 GTCGCACTACATGAGCATCAACGATTCCCTCTATACCAGCCACCTGCAGGTCTCCTTAGATGGCCTCAAG
 TTCAGTGATGATACTGTACCCGAGAGCCCAACAATGACGCCGAAGCCCTGGTCAATGGCTTTGAGCACA
 GTGGCTTGGTCAATCATCCTTGGACAACAAGACATCCACACCCAGGAAGGATGGCTAGCTCCACCCCTC
 CCCAGCCTCGTCTCTGACCTGCTCAGTGAGCTCCACATATCTGAGATCCAGAAGCTGAAACAGCAGCTG
 GTGCAGATGGAGCGGGAGAAGGTGGGCCTGCTGGCAACTGCAGGACACACAGAAGCAGCTGGAGCAGG
 CTCGGGGAACCCCTCTCTGAGCAGCATGAGAAGGTGAATCGTCTCACAGAGAACCTTAGTGCCCTCCGGCG
 CCTGCAGGCTGGCAAGGAGCGACAGACCTCGTTGGATAATGAGAAGGACCGTGACAGCCACGAAGACGGT
 GACTACTATGAGGTGGACATCAATGGCCCTGAGATCCTGGCCTGCAAGTACCACGTGGCTGTGGCTGAGG
 CTGGCGAGCTCCGGGAGCAGCTCAAGGCGTTGCGCAGCACACGAAGCTCGCGAAGCCAGCAGCAGCAG
 AGAAAAGGGCCGGTATGAGGCTGAGGGCCAGGCACTCACTGAGAAGATCTCTCTGCTGGAGAAGGCTAGC
 CACCAGGACCGAGAGCTGCTGGCCATCTGAAAAGGAGCTGAAGAAGGTGAGCGATGTGGCTGGTGAGA
 CCCAGGGCAGCCTGAATGTGGCTCAGGATGAGCTGGTGACCTTCAGCGAGGAGCTGGCCAACCTCTACCA
 CCATGTGTGCATGTGCAACAACGAGACGCCAACCCTGTCATGCTCGACTATTATCGTGAGGGCCAGGGC
 AAGGCTGGCCGCACCAGCCAGAGGGCCGCGGGCCGGTACCTGTCTCTTGGCCAAGGGGCTGTTGG
 CCACAGAGGTGGCCGAGCAGATGGTGGGACTGGGACAACAGTCCTTCACCCAGTTCTTACTGCCGTC
 ACCTCTGAGTGACCCCGCCGGGAACCTATGAACATCTACAACCTGATCGCCATCATCCGAGACCAGATC
 AAGCACCTGCAGGCAGCCGTGGACCGTACGACCGAGCTGTCCCGCAGCGGATTGCTCGCAGGAGCTGG
 GCCCTGCTGTGGACAAGGACAAGGAAGCACTCATGGAGGAGATCCTCAAGCTGAAGTCCCTGCTGAGTAC
 CAAGCGGGAGCAGATCACCACTGCGCACCGTGTCAAGGCCAACAAGCAGACAGCTGAGGTGGCCCTG
 GCCAACCTGAAGAGCAAGTATGAGAACGAGAAGGCCATGGTGACCGAGACCATGATGAAGTACGGAACG
 AGCTCAAGGCCCTCAAGGAAGACGCAGCCACCTTCTCCTCCCTGCGTGCCATGTTTGCCACCAGGTGTGA
 CGAATACATCACACAGCTGGATGAGATGCAGCGGCAGCTGGCAGCTGCCGAGGACGAGAAGAAGACCCCT
 AACTCTCTGTTGCGCATGGCCATCCAGCAGAAGCTGGCGCTCACCCAGCGGCTGGAGCTGCTGGAGCTGG
 ACCATGAACAGACCCGCAGGGGCCGAGCAAGGCCGCTCCAAGGCCAAGCCAGCCTCACCGAGCCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210810 representing NM_001039180
Red=Cloning site Green=Tags(s)

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MEQLKEAFGQAHTNHKKVAADGESREESLIQESASKEQYYVRKVLELQTELKQLRNVL TNTQSENERLTS
VAQELKEINQNVEIQRGLRDDIKEYKFREARLLQDYSELEENISLQKQVSVLRQNQVEFGLKHEIKR
LEETEYLNSQLLEDAIRLKEISERQLEEALET LKTEREQKNNLRKELSHYMSINDSFYTSHLQVSLDGLK
FSDDTVTAEPNNDAAEALVNGFEHSGLVKSSLDNKTSTPRKDG LAPPSPSLVSDLLSELHISEIQLKQQL
VQMEREKVGLLATLQDTQKQLEQARGTLSEQHEKVNRLTENLSALRRLQAGKERQTS LDNEKDRDSHEDG
DYVEVDINGPEILACKYHVAVAEAGELREQLKALRSTHEAREAQAHEEKGRYEAEGQALTEKISLLEKAS
HQDRELLAHLEKELKKVSDVAGETQGSLNVAQDELVTFSEELANLYHHVCMCNNE TPNRVMLDYYREGQG
KAGRTSPEGRRRSPVLLPKGLLATEVGRADGGTGDNSPSPSSSLP SPLSDPREPMNIYNLIAIIRDQI
KHLQAAVDRTTTELSRQRIASQELGPAVDKDKALMEEILKLSLLSTKREQITTLRTVLKANKQTAEVAL
ANLKSKYENEKAMVTETMMKLRNELKALKEDAATFSSLRAMFATRCDEYITQLDEMQRQLAAAEDEKKT L
NSLLRMAIQQKLALTQRLELLELDHEQTRRGRSKAASKAKPASP SL
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9047_f07.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001039180

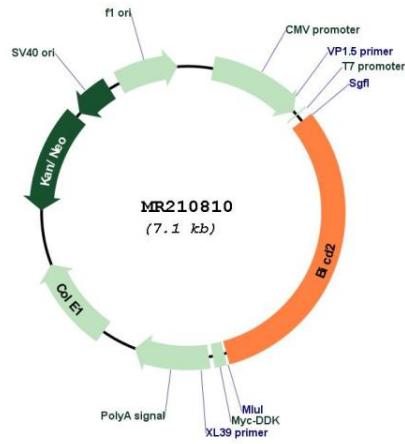
ORF Size: 2238 bp

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).
Reconstitution Method:	<ol style="list-style-type: none">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:	<u>NM_001039180.2, NP_001034269.1</u>
RefSeq Size:	4555 bp
RefSeq ORF:	2241 bp
Locus ID:	76895
UniProt ID:	<u>Q921C5</u>
Cytogenetics:	13 A5
MW:	84.7 kDa
Gene Summary:	Acts as an adapter protein linking the dynein motor complex to various cargos and converts dynein from a non-processive to a highly processive motor in the presence of dynactin. Facilitates and stabilizes the interaction between dynein and dynactin and activates dynein processivity (the ability to move along a microtubule for a long distance without falling off the track) (PubMed:11483508, PubMed:25035494, PubMed:24986880, PubMed:22956769). Facilitates the binding of RAB6A to the Golgi by stabilizing its GTP-bound form (PubMed:25962623). Regulates coat complex coatamer protein I (COPI)-independent Golgi-endoplasmic reticulum transport via its interaction with RAB6A and recruitment of the dynein-dynactin motor complex (PubMed:12447383, PubMed:25962623). Contributes to nuclear and centrosomal positioning prior to mitotic entry through regulation of both dynein and kinesin-1. During G2 phase of the cell cycle, associates with RANBP2 at the nuclear pores and recruits dynein and dynactin to the nuclear envelope to ensure proper positioning of the nucleus relative to centrosomes prior to the onset of mitosis (PubMed:20386726).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210810