

Product datasheet for **MR221959**

Bicd2 (NM_001039179) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bicd2 (NM_001039179) 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:

>MR221959 representing NM_001039179
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATG**TCCGCGCCGT**CGGAGGAGGAGTATGCGCGTCTGGT**GATGGAGGCGCAGCCGGAGTGGCTGCGCG**
 CCGAGGTGAAGCGGCTGTCCACGAGCTGGCCAGACCACGCGTGAGAAGATCCAGGCGGCCGAGTATGG
 ACTGGCGGTGCTGGAGGAGAAGCACCAGCTCAAGCTGCAGTTCGAGGAGCTCGAGGTGGACTATGAGGCC
 ATCCGCAGCGAGATGGAGCAGCTCAAAGAGGCATTTGGCCAGGCACATACAAACCACAAGAAGTGGCTG
 CTGATGGT**GAGAGCCGGGAGGAGCCTGATCCAGGAGTCGGCCTCCAAGGAGCAGTACTACGTGCGGAA**
 GGTGCTGGAGCTGCAGACAGAGCTGAAACAGCTGCGCAACGTCTCACCACACCCAGTCTGAGAATGAG
 CGCCTCACGTCTGTGGCCAGGAGCTAAAAGAGATCAACCAGAATGTGGAGATCCAGCGTGGTGCCTGC
 GGGATGACATCAAGGAGTACAAGTTCGGGAGGCCGCTACTTCAGGACTACTCAGAGCTGGAGGAGGA
 GAACATCAGCCTGCAGAAACAAGTGTCTGTGCTCAGGCAGAACAGGTGGAGTTT**GAGGGCCTCAAGCAT**
 GAAATCAAGCGCCTGGAGGAGGAGACAGAGTACCTCAACAGCCAGCTAGAGGATGCCATCCGGCTTAAGG
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 GATGGCCTCAAGTTCAGTGATGATACTGTACCAGCAGAGCCAAACATGACGCCGAAGCCCTGGTCAATG
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 GAGAAGGCTAGCCACCAGGACCGAGAGCTGCTGGCCATCTGGAAAAGGAGCTGAAGAAGGTGAGCGATG
 TGGCTGGT**GAGACCCAGGCGAGCCTGAATGTGGCTCAGGATGAGCTGGTACCTTCAGCGAGGAGCTGGC**
 CAACCTCTACCACCATGTGTGCATGTGCAACAACGAGACGCCAACCGTGT**CATGCTCGACTATTATCGT**
 GAGGGCCAGGGCAAGGCTGGCCGCACCAGCCCAGAGGGCCGGGGCGCCGGT**CACCTGTCTCTTGCCCA**
 AGGGGCTGTTGGCCACAGAGGTGGGCCAGCAGATGGTGGACTGGGGACAACAGTCCTTACCAGTTC
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 TGCTGGAGCTGGACCATGAACAGACCCGAGGGCCGAGCAAGGCCGCTCCAAGGCCAAGCCAGCCTC
 ACCGAGCGTAAGTACACCTGCGCCTGCGCCAGCGAGAGGGCGGAGGGCGCCGGGCTGGCCAACAGGTG
 TTCTGCAGCGAGAAGCACAGCATTTACTGTGAT

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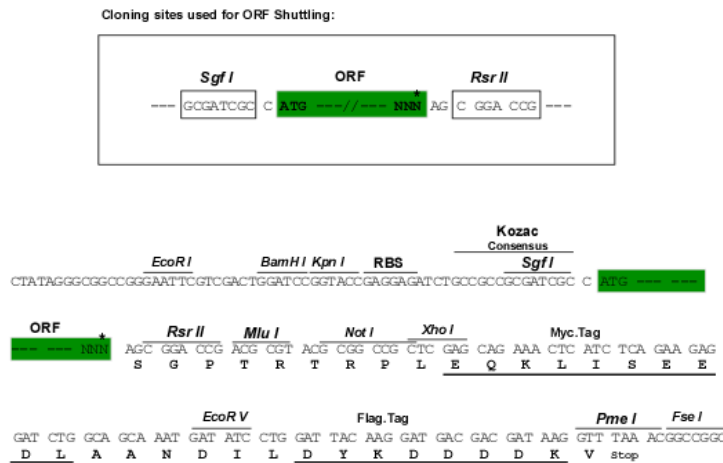
Protein Sequence: >MR221959 representing NM_001039179
 Red=Cloning site Green=Tags(s)

MSAPSEEEYARLVMEAPPEWLRAEVKRLSHELAETTREKIQAEEYGLAVLEEKHQLKLQFELEVVDYEA
 IRSEMEQLKEAFGOAHTNHKKVAADGESREESLIQESASKEQYVYRKVLELQTELKQLRNVLTNTQSENE
 RLTSVAQELKEINQNVETQGRRLRDDIKEYKFRPEARLLQDYSELEENISLQKQVSVLRQNVQVEFGLKH
 EIKRLEEETEYLNQLEDAIRLKEISERQLEEALETLKTEREQKNNLRKELSHYMSINDSFYTSHLQVSL
 DGLKFSDDTVTAEPNDAEALVNGFEHSGLVKSSLDNKTSTPRKDGAPPSPSLVSDLLSELHISEIQKL
 KQQLVQMEREKVGLLATLQDTQKQLEQARGTLEQHEKVNRLTENLSALRRLQAGKERQTSLDNEKDRDS
 HEDGDYVEVDINGPEILACKYHVAVAEAGELREQLKALRSTHEAREAQAHEEKGRYEAEGQALTEKISLL
 EKASHQDRELLAHLEKELKKVSDVAGETQGSLNVAQDELVTFSEELANLYHHVCMNNETPNRVMLDYR
 EGQKGAGRTSPEGRGRRSPVLLPKGLLATEVGRADGGTGDNSPSSSLPSPSLDPRPREPMNIYNLIAII
 RDQIKHLQAADVRTTELSRQRIASQELGPAVDKDKKEALMEEILKLSLLSTKREQITTLRTVLKANKQTA
 EVALANLKSKEYENKAMVTETMMKLRNELKALKEDAATFSSLRAMFATRCDEYITQLDEMQRQLAAAEDE
 KKTLNLSLLRMAIQQLALATQRLLELLELDHEQTRRGRSKAASKAKPASPSVSHTCACASERAEGAGLANQV
 FCSEKHSIYCD

SGP TRTRRL EQKLI SEEDLA ANDILDYK DDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:

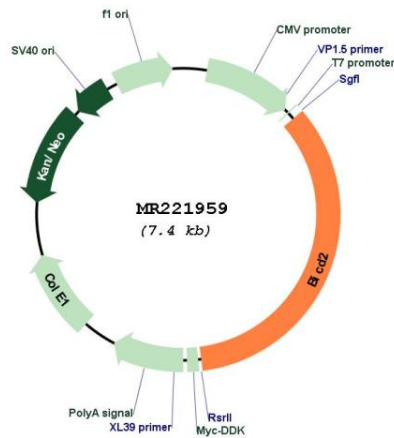


* The last codon before the Stop codon of the ORF

ACCN:	NM_001039179
ORF Size:	2553 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:	NM_001039179.2
RefSeq Size:	6351 bp
RefSeq ORF:	2556 bp
Locus ID:	76895
UniProt ID:	Q921C5
Cytogenetics:	13 A5
MW:	97.1 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 MR221959