

Product datasheet for **MG221959**

Bicd2 (NM_001039179) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bicd2 (NM_001039179) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Bicd2
Synonyms:	0610027D24Rik; 1110005D12Rik; AA408834; mKIAA0699
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG221959 representing NM_001039179
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTC**CGCGCCGTCGGAGGAGGAGGAGTATGCGCGTCTGGT**GATGGAGGCGCAGCCGGAGTGGCTGCGCG
 CCGAGGTGAAGCGGCTGTCCACGAGCTGGCCGAGACCAGCGTGAGAAGATCCAGGCGGCCGAGTATGG
 ACTGGCGGTGCTGGAGGAGAAGCACAGCTCAAGCTGCAGTTCGAGGAGCTCGAGGTGGACTATGAGGCC
 ATCCG**CAGCGAGATGGAGCAGCTCAAAGAGGCATTTGGCCAGGCACATACAAACCACAAGAAGTGGCTG**
 CTGATGGT**GAGAGCCGGGAGGAGCCTGATCCAGGAGTCGGCCTCCAAGGAGCAGTACTACGTGCGGAA**
 GGTGCTGGAGCTGCAGACAGAGCTGAAACAGCTGCGCAACGTCTCACCAACACCCAGTCTGAGAATGAG
 CGCCTCACGTCTGTGGCCAGGAGCTAAAAGAGATCAACCAGAATGTGGAGATCCAGCGTGGTGCCTGC
 GGGATGACATCAAGGAGTACAAGTTCGGGAGGCCGCTACTTCAGGACTACTCAGAGCTGGAGGAGGA
 GAACATCAGCCTGCAGAAACAAGTGTCTGTGCTCAGGCAGAACCGGTGGAGTTT**GAGGGCCTCAAGCAT**
 GAAATCAAGCGCCTGGAGGAGGAGACAGAGTACCTCAACAGCCAGCTAGAGGATGCCATCCGGCTTAAGG
 AGATCTCTGAACGGCAGTTGGAGGAGGCGCTGGAGACACTGAAGACAGAGCGGGAGCAGAAGAACAACCT
 GCGCAAGGAGTTGTCGCACTACATGAGCATCAACGATTCTTCTATACCAGCCACCTGCAGGTCTCCTTA
 GATGGCCTCAAGTTCAGTGATGATACTGTACCAGCAGAGCCCAACAATGACGCCGAAGCCCTGGTCAATG
 GCTTTGAGCACAGTGGCTTGGTCAAATCATCTTGGACAACAAGACATCCACACCCAGGAAGGATGGCCT
 AGCTCCACCC**CCCCAGCCTCGTCTGACCTGCTCAGTGAGCTCCACATATCTGAGATCCAGAAGCTG**
 AAACAGCAGCTGGTGCAGATGGAGCGGGAGAAGTGGCCCTGCTGGCAACTGCAGGACACACAGAAGC
 AGCTGGAGCAGGCTCGGGGAACCTCTCTGAGCAGCATGAGAAGGTGAATCGTCTCACAGAGAACCTTAG
 TGCCCTCCGGCGCCTGCAGGCTGGCAAGGAGCGACAGACCTCGTTGGATAATGAGAAGGACCGTGACAGC
 CACGAAGACGGTACTACTATGAGGTGGACATCAATGGGCTGAGATCCTGGCCTGCAAGTACCACGTGG
 CTGTGGCTGAGGCTGGCGAGCTCCGGGAGCAGCTCAAGGCGTTGCGCAGCACACAGAAAGCTCGGAAGC
 CCAGCACGCAGAAGAAAAGGGCCGGTATGAGGCTGAGGGCCAGGCACTACTGAGAAGATCTCTCTGCTG
 GAGAAGGCTAGCCACCAGGACCGAGAGCTGCTGGCCCATCTGGAAAAGGAGCTGAAGAAGGTGAGCGATG
 TGGCTGGT**GAGACCCAGGCAGCCTGAATGTGGCTCAGGATGAGCTGGT**GACCTTCAGCGAGGAGCTGGC
 CAACCTCTACCACCATGTGTGCATGTGCAACAACGAGACGCCAACCGTGT**CATGCTCGACTATTATCGT**
 GAGGGCCAGGGCAAGGCTGGCCGCACCAGCCAGAGGGCCGGCGCCGGT**CACCTGTCTCTTGCCCA**
 AGGGGCTGTTGGCCACAGAGGTGGCCGAGCAGATGGTGGGACTGGGGACAACAGTCCTTACCAGTTC
 TCACTGCCGTACCTCTGAGTGACCCCGCCGGGAACCTATGAACATCTACAACCTGATCGCCATCATC
 CGAGACCAGATCAAGCACCTGCAGGCAGCCGTGGACCGTACGACCGAGCTGTCCCGGCAGCGGATTGCC
 CGCAGGAGCTGGGCCCTGCTGTGGACAAGGACAAGGAAGCACTCATGGAGGAGATCCTCAAGCTGAAGTC
 CCTGCTGAGTACCAAGCGGGAGCAGATCACCACTGCGCACCGTGTCAAGGCCAACAAGCAGACAGCT
 GAGGTGGCCCTGGCCAACCTGAAGAGCAAGTATGAGAACGAGAAGGCCATGGT**GACCGAGACCATGATGA**
 AGCTACGGAACGAGCTCAAGGCCCTCAAGGAAGACGCAGCCACCTTCTCTCCCTGCGTGCCATGTTTGC
 CACCAGGTGTACGAATACATCACACAGCTGGATGAGATGCAGCGGCAGCTGGCAGCTCCGAGGACGAG
 AAGAAGACCCCTTAACTCTCTGTTGGCATGGCCATCCAGCAGAAGCTGGCGCTCACCCAGCGGCTGGAGC
 TGCTGGAGCTGGACCATGAACAGACCCGCAGGGGCCGAGCAAGGCCCTCCAAGGCCAAGCCAGCCTC
 ACCGAGCGTAAGT**CACACCTGCGCTGCGCCAGCGAGAGGGCGGAGGGCGCCGGCTGGCCAACCAAGGTG**
 TTCTGAGCGAGAAGCACAGCATTTACTGTGAT

AGCGGACCGACCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG221959 representing NM_001039179
 Red=Cloning site Green=Tags(s)

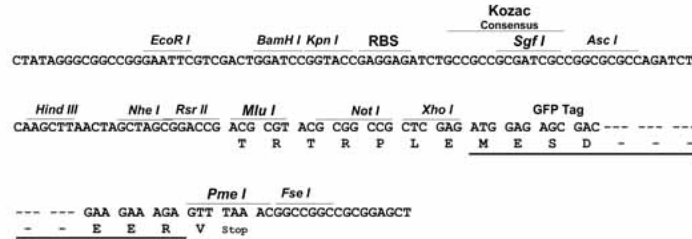
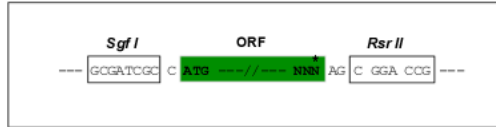
```
MSAPSEEEYARLVMEAPQEWLRAEVKRLSHELAEATTREKIQAAYGLAVLEEKHQLKLQFEELEVDYEA
IRSEMEQLKEAFGQAHTNHKKVAADGESREESLIQESASKEQYYVRKVLELQTELKQLRNVTNTQSENE
RLTSAQELKEINQNVEIQRGRLRDDIKEYKFREARLLQDYSELEENISLQKQVSVLRQNQVFEGLKH
EIKRLEEEETEYLNQLEDAIRLKEISERQLEEALETLKTEREQKNLRKELSHYMSINDSFYTSHLQVSL
DGLKFSDDTVTAEPNDAEALVNGFEHSLVKSSLDNKTSTPRKDGLAPPSPSLVSDLLSELHISEIQKL
KQQLVQMEREKVGLLATLQDTQKQLEQARGTLEQHEKVNRLTENLSALRRLQAGKERQTSLDNEKDRDS
HEDGDYEEVDINGPEILACKYHVAVAEAGELREQLKALRSTHEAREAQAHEEKGRYEAEGQALTEKISLL
EKASHQDRELLAHLEKELKKVSDVAGETQGSLNVAQDELVTFSEELANLYHHVCMCNNETPNRVMLDYR
EGQGKAGRTSPEGRGRSPVLLPKGLLATEVGRADGGTGDNSPSPSSSLPSLSDPRREPMMNIYNLIAII
RDQIKHLQAAVDRTEL SRQRIASQELGPAVDKDKEALMEEILKLSLLSTKREQITTLRTVLKANKQTA
EVALANLKSKEYENKAMVTETMMKLRNELKALKEDAATFSSLRAMFATRCDEYITQLDEMQRQLAAAEDE
KKTLSNLLRMAIQKLLALTQRLELLELDHEQTRRGRSKAASKAKPASPSVSHTCACASERAEGAGLANQV
FCSEKHSIYCD
```

SGPTRRRLE - GFP Tag - V

Restriction Sites: Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



- 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:

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

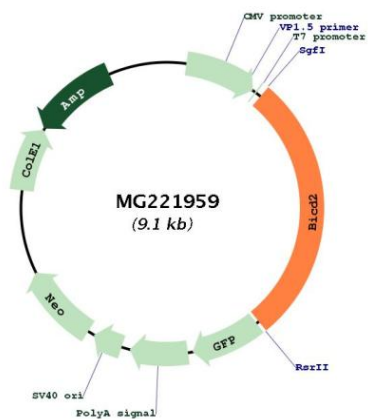
Locus ID: 76895

UniProt ID: [Q921C5](#)

Cytogenetics: 13 A5

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 MG221959