

Product datasheet for **MR221163**

Bbs4 (NM_175325) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bbs4 (NM_175325) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bbs4
Synonyms:	AW537059; AW742241; D9Ert464e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR221163 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTGAAGTGAAGCTTGGGATGAAAACCTCAGGTTCTGCATCTGTTGAATCTCAAAAACCTAGGTCAA
 AAAAAGCTCCAGACTTCCCTATTGTGGAGAAACAGAAGCTGGCTGATCCATCTCCACTATATCCGGAAGGA
 TTATGAAGCTTGAAGGCTGTGATCAAAGAACAGCTTCAGGAGACTCAGGGGCTATGTGAATATGCTATC
 TATGTCCAAGCACTGATTTTTCGCCTGGAAGAAATATCCAAGAATCCCTAGAACTCTTTTCAGACATGTG
 CTGTTCTCAGCCACAGTGTGCTGATAATCTCAAGCAGGTGGCCAGATCTTTGTTCTTCTGGGAAAACA
 CAAAGCTGCCACTGAAGTATATAATGAAGCAGCTAAACTTAACCAGAAAGACTGGGAGATCTGCCATAAC
 CTGGGAGTGTGCTACACTACCTGAAGCAGTTCACAAGGCACAAGACCAACTGCACAGTGCCTCCAGC
 TTAACAAGCATGACCTGACTTACATAATGTTGGGAAGATCCATTTACTGCAGGGAGACCTGGATAAAGC
 CATCGAGATCTACAAGAAAGCAGTAGAGTTCTCACCAGAAAATACTGAACTTCTTACAACTTTAGGATTG
 CTCTACTTGCAGCTTGGTGTGTACCAGAAGGCATTTGAACATCTTGGGAATGCAGTACCTACGACCCCTG
 CCAACTACAAGGCCATCTTGGCAGCAGGCAGCATGATGCAGACTCATGGGGACTTTGATGTGCGCCCTTAC
 CAAATACAGAGTTGTAGCCTGTGCTATTCCAGAAAGTCCCTCCACTTTGGAATAACATTGGAATGTGTTTC
 TTTGGCAAGAAGAAATATGTGGCAGCTATCAGTGCCTAAAACGAGCCAACTACTTGGCACCCCTTCGACT
 GGAAGATTCTGTACAACCTGGGCCTTGCCATTTGACTATGCAGCAGTATGCATCAGCATTCCATTTTCT
 CAGTGCAGCCATCAACTCCAGCCAAAGATGGGGAACTCTACATGCTCTGGCTGTGGCTCGACCAAC
 CTGGAAGATATAGAGAATGCCAGAAGAGCTTATGTAGAAGCTGTCGCTGGATAAGTGTAAACCTTTAG
 TAAACCTGAACTATGCTGTGCTGTATAAACCAGGGTGAGAAGAAGAGCGCCCTGGCTCAGTACCAGGA
 GATGGAGAAGAAGGTCAACTTTCTCAAGGACAACAGCCCTCTGGAATTTGACTCTGAGATGGTAGAGATG
 GCTCAGAAGTTGGGAGCTGCCCTTCAGGTGGGAGAGGCACTGGTCTGGACCAAACAGTCAAAGATCCCA
 AGACAAAGCACCGGACCAATTCAGGCAGCAAATCTGCTACTCTCCAGCAGCCTCTGGTTCCATTCAAGC
 TCTAGGACAGGCGATGTCTTCAGCAGCTGCATACAGAAAGATCCTTTAGGTGCTGTAGGAGCCAGCTC
 CAAAGCCACCATCACTGCCACTGGAGCCAGAGCCAGAGCCCACTGTGGAAGCAAGTCCAACAGAAGCAT
 CAGAACAAAAGAAAGAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR221163 protein sequence
 Red=Cloning site Green=Tags(s)

MAEVKLG MKTQVPASVESQKPRSKKAPDFPIVEKQNWLIHLHYIRKDYEAACKAVIKEQLQETQGLCEYAI
 YVQALIFRLEGNIQESLELFTCAVLSQCADNLKQVARSLFLLGKHKAATEVYNEAAKLNQKDWEICHN
 LGVCYTYLKQFNKAQDQLHSALQLNKHDLTYIMLGKIHLLQGDLDKAIIEIYKKADEFSPENTELLTTLGL
 LYLQLGVYQKAFEHLGNALTYDPANYKAILAAGSMMQTHGDFDVALTKYRVVACAIPEPPLWNNIGMCF
 FGKKKYVAAISCLKRANYLAPFDWKILYNLGLVHLMQYASAFHFLSAAINFQPKMGELYMLLAVALTN
 LEDIENARRAYVEAVRLDKCNPLVNLNYAVLLYNQGEKKSALAQYQEMEKVNFLLKDNSPLEFDSEMVEM
 AQKLGALQVGEALVWTKPVKDPKTKHRTNSGSKSATLQQPLGSIQALGQAMSSAAAYRKILSGAVGAQL
 PKPPSLPLEPEPEPTVEASPTASEQKKEK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_175325

ORF Size: 1563 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_175325.3](#), [NP_780534.1](#)

RefSeq Size: 2542 bp

RefSeq ORF: 1563 bp

Locus ID: 102774

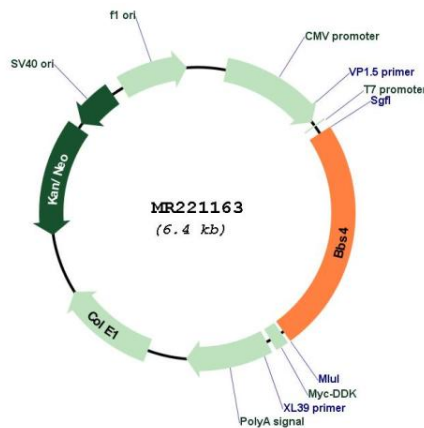
UniProt ID: [Q8C1Z7](#)

Cytogenetics: 9 32.01 cM

MW: 58.3 kDa

Gene Summary: The BBSome complex is thought to function as a coat complex required for sorting of specific membrane proteins to the primary cilia. The BBSome complex is required for ciliogenesis but is dispensable for centriolar satellite function. This ciliogenic function is mediated in part by the Rab8 GDP/GTP exchange factor, which localizes to the basal body and contacts the BBSome. Rab8(GTP) enters the primary cilium and promotes extension of the ciliary membrane. Firstly the BBSome associates with the ciliary membrane and binds to RAB3IP/Rabin8, the guanosyl exchange factor (GEF) for Rab8 and then the Rab8-GTP localizes to the cilium and promotes docking and fusion of carrier vesicles to the base of the ciliary membrane. The BBSome complex, together with the LTZL1, controls SMO ciliary trafficking and contributes to the sonic hedgehog (SHH) pathway regulation. Required for proper BBSome complex assembly and its ciliary localization. Required for microtubule anchoring at the centrosome but not for microtubule nucleation. May be required for the dynein-mediated transport of pericentriolar proteins to the centrosome (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221163