

Product datasheet for **RR205555**

Bbs2 (NM_053618) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bbs2 (NM_053618) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bbs2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR205555 representing NM_053618
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCTGCCTGTGTTACCCCTGAAACTGCGCCACAAAATCAGCCCCGCATGGTGGCCATAGGGCGCT
 ACGACGGGACTCACCCGTGCTTGGCGGCCGCCACCCAAGCGGGCAAGGTTTTTATTCATAATCCTCACAT
 GCGGAGCCAGCATTTTAGTACATCCAGAGTGTTCCAGAGCCCTCTTGAGTCTGATGTGTCCTCCTCAAC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >RR205555 representing NM_053618
 Red=Cloning site Green=Tags(s)

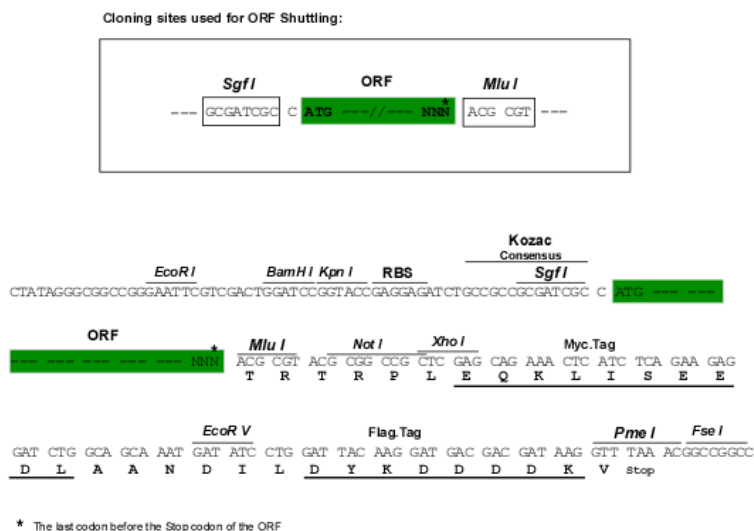
MLLPVFTLKL RHKISPRMVAIGRYDGHPLCAAATQAGKVF IHNPHMRSQHFSTSRV FQSPLESDVSL LN
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 NCALQGF DHEGNDLFWTVTGDNVHSLALCDFDGDGKSELLVGSDFDIRVFKEDI VAEMTETEIVTSLC
 PMYGRSFGYAL SNGTVGVYDKTARYWRIKSKNHAMSIHAFDINSDGVCELITGWSNGKVDARS DR TGEVI
 FKDNFSSAVAGVVEGDYRMDGHVQLICCSVDGEIRGYLPGTAEMKGNLLDTSVEQGLIRELSQKKQNL LL
 ELRNYEENTKAELSSPLNEADGQKGIIPANTKLHTALSVNLGND AQDAHAELRISTSNDTIIRAVLIFAE
 GIFAGESHVHPSTHNLSSSIRVPIPPKDV PVDLHLKTFVGYRSSTQFHFV FELIRQLPRFTMYALTSPD
 AASEPVSVFNFI VVERAQRMTWLNQNFLLPEDSNIQNAPFHVCFTSLRNGGQLYIKMKPSGEITVNTDD
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 ARLMRDMKTMKTRYMELYDLNKDLLNGYIRCNNHTELLGNLKA VNOAIQRAGRLRVGPKNQVISACRD
 AIRSNNINTLFRIMRVGTAPS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_053618

ORF Size: 2163 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_053618.1](#), [NP_446070.1](#)

RefSeq Size: 2573 bp

RefSeq ORF: 2166 bp

Locus ID: 113948

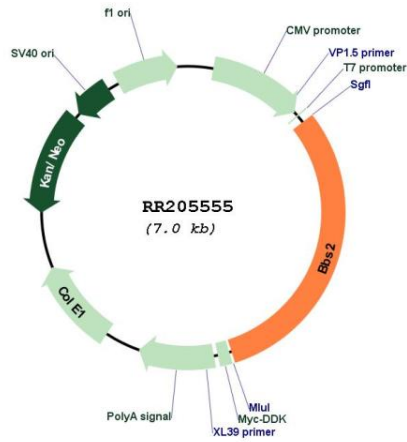
UniProt ID: [Q99MH9](#)

Cytogenetics: 19p12

MW: 79.9 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 (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR205555