

Product datasheet for **MG210222**

Bbs7 (NM_027810) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bbs7 (NM_027810) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Bbs7
Synonyms:	8430406N16Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210222 representing NM_027810
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATCTGACGTTAAGCCGGGCAGACTACCTCCAGGTCGGAGTGACCTCTCAGAAAATATGAAGTTGC
 TTCCTACCTCAAGACAAAGGGCTACACAAAAGGTGGTTGTTGGAGATCAAGATGGGGTAGTGATATGCTT
 CGGCGTGAAGAAAAGGAGAAGCTGTGCCAGTGTTCAAGACTTTACCAGGGCAGAAGATCTCGAGGCTGGAA
 CTAGGAGGGGCCGTAACACGCCTCAGGAGAAAATCTTCATTGCTGCAGGGTCCGAGATTAGAGGCTTTA
 CAAAGAGAGGGAAACAGTTTCTCTCTTTTGAACCTAACCTCACGGAAAGCATTAAAGCTATGTACATATC
 TGGCTCTGACCTTCTCAGTGAAGCTACATCTATAATCACTACTGTGATTGCAAAGACAAAATTAT
 TACCTTTCTGGGACAAAATCAATGATGTCATCTGCCTTCTGTGGAAAAGTTATCTCGCGTGACACCGG
 TGTTGGCCTGCCAGGACCGGGTCTCCGAGTCTACAGGGATCTGATGTGATGTATGAAATTGAGGTTCC
 TGGTCCACCCACCGTCTTAGCACTGCATAATGGAGATGGAGGTGACTCTGGAGAAGGACTCTGTTCGGC
 ACATCAGATGGAAGACTTGGGCTTATTCAGATCACAACATCCAAACCAATACACAATGGGAAATTCGAA
 ATGACAAAAGCGGGGAGGTATCTTGTGTGTTGACAGCTTTGATATCATGGGTGATGGGGTTAAAGATT
 ACTTGTGGGAGAGATGATGGAATGGTGGAAATATAGTTTTGAAAATGCAAAATGAACCTGTGCTACGA
 TTTGATCAGATGCTGTCTGAAAGCGTCACCTCCATCCAGGGTGGCTGTGTGGGAAAAGATGGCTATGATG
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 ACCAGGAGAAGAACTAAACTTAATCAGGAGATGCAGAATAAGATTTCTCTTTAAGGTCTGAAATAGAA
 CACCTGCAGTTTAAGGTGCTTCAGGAGAGAGAAAATTACCAACAGTCTTCACAGTCAAGCCAAGCAAAGT
 CAACAGTCCCTTCATTTCAGTATAAATGACAAGTTCAGTGAATAAAGAAGATGCTAGCTACAGCCTCGT
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 CTTATCGGTGCCAGGCAATACCACCAGGCTGGAGCTCAAGATTCGTTCAATTGAAGGCCAGTATGGCAC
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 CTATCACTCCATCAAAGAACTCACTTTATTGACCATGACAGGCCTATGAACACACTGACTCTAACAGGCC
 AGTTCAGCTTTGCTGAAGTTCACCTCTGGGTGGTGTCTGCCTGCCTGAAGTTCCTGAAAAGCCTCCAGC
 AGGGGAATGTGCAACATTTTACTTTCAGAATACCTTTCTGGATACACAACCTTGAGTGTGTATACAGGAAA
 GGAGAAGGAGTTTTTAAATCTGACAACATTTCTACAATATCCATCCTAAAAGATGTGCTTTCTAAGAAG
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 GCTAATTCACCCGAAGCTGGAGTATCAGCTGCTTCTGGCTAAGAAAAGTGCAAGTAAATCGATGCCCTGAAG
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 ATCATCTACAAGAGGAATACAAAAGCAGCCTGCACATCTTGAAGAGACTCTATGGTATGATTACTGATCT
 TTTTATAGATAAATTTAAGTTCAAAGGCACTAATGTAAAAACCAAGTACCCATGCTCCTGGAGATTCTC
 GACAGCTACGACCAGAACACACTGATTTCTTTCTTCGATGCAGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210222 representing NM_027810
 Red=Cloning site Green=Tags(s)

MDLTLSRADYLQVGVT SQKTMKLLPTSRQRATQKVVVGDQDGVVICFVKKGEAVPVFKTLPGQKISRLE
 LGGAVNTPQEKIFIAAGSEIRGFTKRKQFLSFETNLTESIKAMYISGSDLFLSASYIYNHYCDCKDQNY
 YLSGDKINDVICLPVEKLSRVTPVLACQDRVLRVLQGSVDMYIEVPGPPTVLALHNGDGGDSGEGLLFG
 TSDGRLGLIQITTSKPIHKWEIRNDKRRGGILCVDSFDIMGDGVKDLLVGRDDGMVEVYSFENANEPVLR
 FDQMLSESVTSIQGGCVGKDGDEIVLATYSGWVTGLTTEPTHKESGPGEEELKLNQEMQNKISSLRSEIE
 HLQFKVLQERENYQQSSQSSQAKSTVPFSINDKFTLNKEDASYSLVLEVRTAIDNVLIQSDVPIDLLDV
 DKNSAVVSFSSCDTESNDNLLATYRCQANTTRLELKIRSIIEGQYGTLQAYVTPRIQPKTCQVRQYHIKP
 LSLHQRTHFIDHRPMNTLTLTGQFSFAEVHSWVVFCLPEVPEKPPAGECATFYFQNTFLDTQLECVYRK
 GEGVFKSDNISTISILKDVLSKEATKRKINLNISYEINEVSVKHTLKL IHPKLEYQLLLAKKVQLIDALK
 ELQVHEGNTDFLTPEYRCILEEADHLQEEYKQPAHLERLYGMITDLFIDKFKFGTNNVTKVPMLLEIL
 DSYDQNTLISFFDAA

TRTRPLE - GFP Tag - V

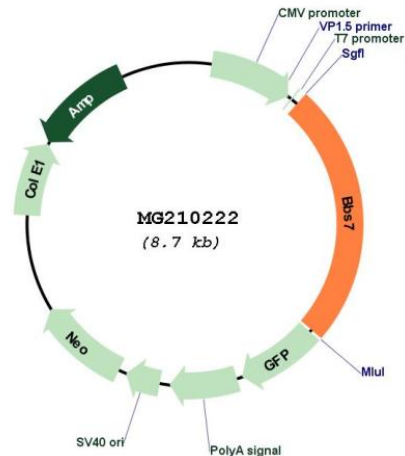
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_027810

ORF Size: 2145 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_027810.1](#), [NP_082086.1](#)

RefSeq Size: 2594 bp

RefSeq ORF: 2148 bp

Locus ID: 71492

UniProt ID: [Q8K2G4](#)

Cytogenetics: 3 B

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 BBSome complex ciliary localization but not for the proper complex assembly (By similarity). [UniProtKB/Swiss-Prot Function]