

## Product datasheet for **RC206210**

### **BBS4 (NM\_033028) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BBS4 (NM_033028) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BBS4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC206210 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCTGAGGAGAGAGTGCAGCAGAACTCAATTCCTGTATCTACTGAGTCTCAAAAACCCGCGCAGA  
 AAAAAGCTCCAGAGTTTCTATTTTGGAGAAGCAGAACTGGTTGATTTCATCTTATTATATCCGAAAGA  
 TTATGAAGCCTGCAAGGCTGTTATCAAAGAACAGCTTCAAGAGACTCAGGGATTGTGTAATATGCTATC  
 TATGTCCAAGCATTGATATTTTCGCTAGAAGAAATATCCAAGAAATCCCTAGAAGCTTCCAGACATGTG  
 CAGTTCTTAGTCCTCAGAGTGTGATAACCTCAAGCAGGTGGCCAGATCTTTATTTCTTTGGGAAAACA  
 TAAAGCTGCCATTGAAGTATATAATGAAGCAGTAACTCAACCAGAAAGATTGGGAGATCAGCCATAAC  
 CTAGGAGTTTGTACATACCTGAAGCAGTCAACAAGGCACAAGACCAGTTGCACAATGCCCTGAATC  
 TTAATAGGCACGATCTGACTTATATAATGCTGGGAAGATCCACTTGCTGGAGGGAGACTGGACAAGGC  
 CATTGAAGTCTACAAGAAAGCAGTGGAGTTCTCACCAGAAAATACAGAGCTTCTTACAACTTTAGGATTA  
 CTCTACTTACAGCTCGGCATTTACCAGAAGGCATTTGAACATCTTGGCAATGCAGTACTTATGACCCTA  
 CCAACTACAAGGCCATCTTGGCAGCAGGCAGCATGATGCAGACCCACGGGGACTTTGATGTTGCCCTCAC  
 CAAATACAGAGTTGTGGCTTGTGCTGTTCCAGAAAGTCTCCACTCTGGAATAACATTGGAATGTGTTTC  
 TTTGGCAAGAAGAAATATGTGGCGGCCATCAGTGCCTGAAACGAGCCAACTACTTGGCACCCCTCGATT  
 GGAAGATTCTGTATAATTTGGCCCTGTCCATTTGACCATGCAGCAGTATGCATCAGTTTTTCATTTTCT  
 CAGTGGCGCCATCAACTCCAGCCAAAGATGGGGAGCTCTACATGCTCTTGGCAGTGGCTCGACCAAT  
 CTGGAAGATACAGAAAATGCCAAGAGAGCCTACGAGAAGCAGTCCACCTGGATAAGTGTAAACCTTTAG  
 TAAACCTGAACTATGCTGTGCTGCTGTACAACCGGGGAGAGAAAGAAAGAACGCCCTGGTCCAATACAGGA  
 GATGGAGAAGAAAGTCAAGCTACTCAAGGACAATAGCTCTGGAATTTGACTCTGAGATGGTGGAGATG  
 GCTCAGAAGTTGGGAGCTGCTCTCCAGGTTGGGGAGGCACTGGTCTGGACCAAACCAAGTTAAAGATCCCA  
 AATCAAAGCACCAGACCCTTCAACCAGCAAACCTGCCAGTTTCCAGCAGCCTCTGGGCTAATCAAGC  
 TCTAGGACAGGCAATGTCTTCCAGCAGTGCATACAGGACGCTCCCTCAGGTGCTGGAGGAACATCCCGAG  
 TTCACAAAGCCCCATCTCTCTCTGGAGCCAGAGCCTGCGGTGGAATCAAGTCCAACCTGAAACATCAG  
 AACAAATAAGAGAGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC206210 protein sequence  
 Red=Cloning site Green=Tags(s)

MAEERVATRTQFPVSTESQKPRQKKAPEFPILEKQNWLIHLHYIRKDYEAACKAVIKEQLQETQGLCEYAI  
 YVQALIFRLEGNIQESLELFTCAVLSPOQSADNLKQVARSLFLLGKHKAIEVYNEAAKLNQKDWEISHN  
 LGVCYIYLKQFNKAQDQLHNLNRHDLTYIMLGKIHLLLEGDLDAIEVYKAVEFSPENTELLTTLGL  
 LYLQLGIYQKAFHLGNALTYDPTNYKAILAAGSMQTHGDFDVALTKYRVVACAVPESPLWNNIGMCF  
 FGKKKYVAAISCLKRANYLAPFDWKILYNLGLVHLMQYASAFHFLSAAINFQPKMGELYMLLAVALTN  
 LEDTENAKRAYAEAVHLDKCNPLVNLNYAVLLYNQGEKKNALVQYQEMEKKVSLLDKDNSSLEFDSEMVM  
 AQKLGAAALQVGEALVWTKPVKDPKSKHQTTSTSKPASFQQPLGNSQALGQAMSSAAAYRTLPSGAGGTSQ  
 FTKPPSLPEPEPAVESSPTETSEQIREK

**TR**TRPLEQK**LI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6535\\_g12.zip](https://cdn.origene.com/chromatograms/mk6535_g12.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_033028

**ORF Size:** 1557 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\\_033028.5](#)

**RefSeq Size:** 2515 bp

**RefSeq ORF:** 1560 bp

**Locus ID:** 585

**UniProt ID:** [Q96RK4](#)

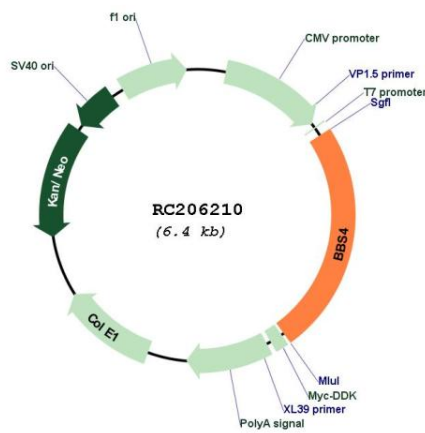
**Cytogenetics:** 15q24.1

**Domains:** TPR

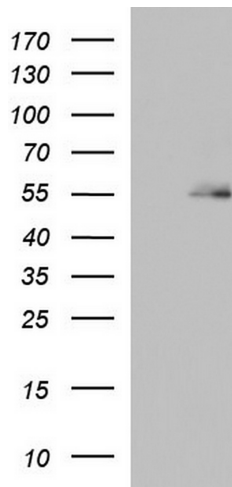
**MW:** 58.3 kDa

**Gene Summary:** This gene is a member of the Bardet-Biedl syndrome (BBS) gene family. Bardet-Biedl syndrome is an autosomal recessive disorder characterized by severe pigmentary retinopathy, obesity, polydactyly, renal malformation and cognitive disability. The proteins encoded by BBS gene family members are structurally diverse. The similar phenotypes exhibited by mutations in BBS gene family members are likely due to the protein's shared roles in cilia formation and function. Many BBS proteins localize to the basal bodies, ciliary axonemes, and pericentriolar regions of cells. BBS proteins may also be involved in intracellular trafficking via microtubule-related transport. The protein encoded by this gene has sequence similarity to O-linked N-acetylglucosamine (O-GlcNAc) transferases in plants and archaeobacteria and in human forms a multi-protein "BBSome" complex with seven other BBS proteins. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]

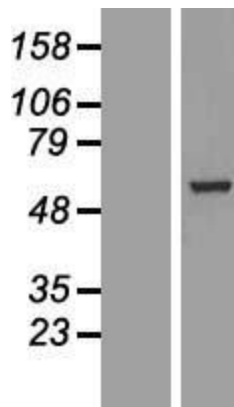
**Product images:**



Circular map for RC206210



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BBS4 (Cat# RC206210, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BBS4 (Cat# [TA804560]). Positive lysates [LY409788] (100ug) and [LC409788] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY409788]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206210 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BBS4 protein (Cat# [TP306210]). The protein was produced from HEK293T cells transfected with BBS4 cDNA clone (Cat# RC206210) using MegaTran 2.0 (Cat# [TT210002]).