

## Product datasheet for MR203075

### Bdh2 (NM\_027208) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Bdh2 (NM_027208) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bdh2
Synonyms:	1810026B04Rik; Dhhrs6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203075 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCCGACTGGACGGCAAAGTTATTGTCTGACAGCTGCCGCTCAAGGGATTGGACGGGCATCCGCAT  
TAGCTTTTGCAAGAGAAGGAGCCAAAGTCATAGCCACAGATATCAACGAGTCCAACTCCAGGAGCTGGA  
AAGTTACCGAGGTATTCAAACGAGTCTTGATGTCACAAAGAAGAGACAGATTGATCAGTTTGCCTCA  
GAAATCGAGAGAATTGATGTTCTCTTAAATGTTGCTGGTTTTGTCCACCACGGAACCATCCTGGATTGCG  
AGGAAAAAGACTGGGACTTCTCAATGAATCTCAACGTCCGAGCATGTTCTGATGATCAAAGCATTCTCT  
TCCCAAATGCTTGCTCAGAAGTCAGGCAACATTATCAACATGTCGTCTGTGGCCTCCAGCATCAAAGGG  
GTGGAGAACAGATGTGTGTACAGTGCTACCAAGGCGGCTGTGATCGGTCTCACCAGTCCGTGGCTGCAG  
ACTTCATCCAACAGGGCATCAGATGCAACTGTGTGTGTCAGGAACGGTTGACACCCCATCTCTGCAAGA  
AAGAATACAAGCCAGAGACAATCCCAAAGAGGCACTGAAAACCTTCTAAACAGACAAAAGACGGGAAGG  
TTTGCCTCGGCCGAGAGGTGCTCTGCTGCGTATACCTGGCCTCGGACGAGTCAGCCTATGTAACCTG  
GCAACCTGTATCATTGATGGGGGCTGGAGCCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR203075 protein sequence  
 Red=Cloning site Green=Tags(s)

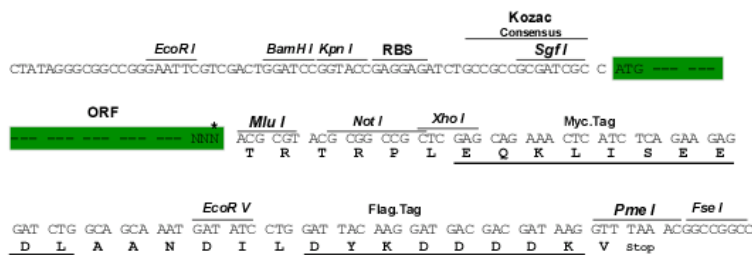
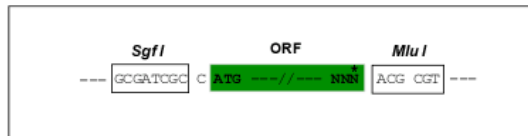
MGRLDGKVIVL TAAAQGIGRASALAFAREGAKVIATDINESKLQELESYRGIQTRVLDVTKKRQIDQFAS  
 EIERIDVLFNVAGFVHHGTILDCEEKDWDFSMNLNVRSMFLMIKAF LPKMLAQKSGNIINMSSVASSIKG  
 VENRCVYSATKAAVIGLTKSVAADFIQQGIRCNCVCPGTVDTPSLQERI QARDNPKEALKTFLNRQKTGR  
 FASAEVALLCVYLASDESAYVTGNPVIIDGGWSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_027208

**ORF Size:** 738 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\\_027208.2](#)

**RefSeq Size:** 1099 bp

**RefSeq ORF:** 738 bp

**Locus ID:** 69772

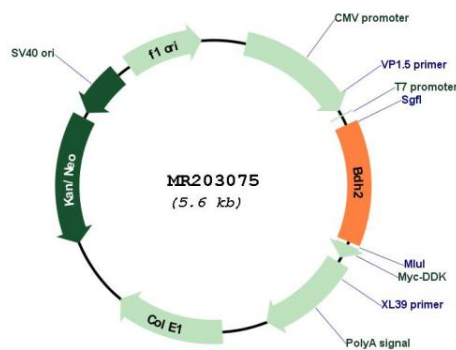
**UniProt ID:** [Q8JZV9](#)

**Cytogenetics:** 3 G3

**MW:** 26.8 kDa

**Gene Summary:** Dehydrogenase that mediates the formation of 2,5-dihydroxybenzoic acid (2,5-DHBA), a siderophore that shares structural similarities with bacterial enterobactin and associates with LCN2, thereby playing a key role in iron assimilation and homeostasis (PubMed:20550936, PubMed:24863067). Plays a role in susceptibility to bacterial infection by providing an assimilable source of iron that is exploited by pathogenic bacteria (PubMed:24863067). Also acts as a 3-hydroxybutyrate dehydrogenase (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR203075