

Product datasheet for **RR213039**

Bdh2 (NM_001106473) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bdh2 (NM_001106473) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bdh2
Synonyms:	Dhrs6
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR213039 representing NM_001106473 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTTGGATTGCACTGCAGGATCCACCATGGGCCGCTGGAAGGGAAAGTCATCGTCTGACAGCTG
CCGCTCAAGGGATCGGCCGGCTTCTGCTTAGCTTTGCAAGAGAAGGAGCCAAAGTCATAGCCACAGA
TATCAACGAGGCCAACTCCAGGAGCTGGAAAATTACCCAGGTATTCAAACGAGTCTTGATGTCACA
AAGAAGAGACAAATTGATCAGTTCGCCTCAGAAATTGAGAAGATTGATGTTCTCTTAACGTTGCTGGTT
TTGTCCACCACGGAACCATCCTGGATTGCGAGGAAAAAGACTGGGACTTCTCCATGAATCTCAACGTCGG
CAGCATGTACCTGATGATCAAGGCATTCTGCCAAAAATGCTTGCTCAGAAATCTGGCAACATTATCAAC
ATGTCTCCGTGGCTCCAGCATCAAAGGGTGGAGAACAGATGTGTGTACAGTGCAACCAAGGCAGCTG
TGATCGGCCTACCAAGTCCGTGGCTGCAGACTTCATCCAGCAGGGCATCAGATGCAACTGTGTGTGCC
AGGAACGGTTGACACCCATCTCTGCAAGAAAGAATAACAAGCCAGAGATGATCCCAAGAGGCAGTAAA
GCTTTCTAAACAGACAGAAGACCGGAAGTTTGCATCTGCAGAAGAGGTGCGCCCTGCTGCGTATACT
TGGCCTCAGATGAGTCAGCCTATGTGACTGGCACCCCTGTCGTCATCGATGGCGGTTGGAGTCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR213039 representing NM_001106473
Red=Cloning site Green=Tags(s)

MFLDCTAGSTMGRLEGKVIIVLTAAAQIGRASALAFAREGAKVIATDINEAKLQELNENYPGIQTRVLDVT
 KKRQIDQFASEIEKIDVLFNVAGFVHHGTILDCEEKDWDFSMNLNVRSMYLMIKAF LPKMLAQKSGNIIN
 MSSVASSIKGVENRCVYSATKAAVIGLTKSVAADF IQQGIRCNCVCPGTVDTPSLQERI QARDDPKALK
 AFLNRQKTGRFASAEVALLCVYLASDESAYVTGTPVVIDGGWSL

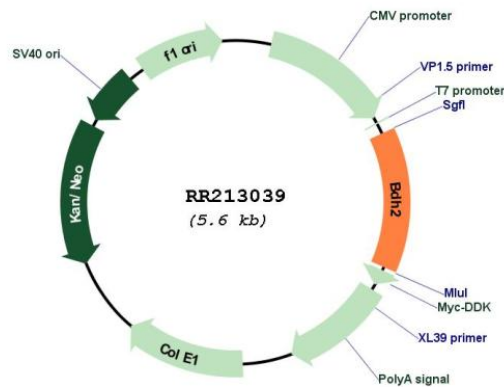
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001106473
ORF Size: 765 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:	<ol style="list-style-type: none">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_001106473.1 , NP_001099943.1
RefSeq Size:	1156 bp
RefSeq ORF:	768 bp
Locus ID:	295458
UniProt ID:	D4A1J4
Cytogenetics:	2q43
MW:	27.7 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. Plays a role in susceptibility to bacterial infection by providing an assimilable source of iron that is exploited by pathogenic bacteria (By similarity). Also acts as a 3-hydroxybutyrate dehydrogenase (By similarity).[UniProtKB/Swiss-Prot Function]