

Product datasheet for **RG210586**

BDH2 (NM_020139) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BDH2 (NM_020139) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BDH2
Synonyms:	DHRS6; EFA6R; PRO20933; SDR15C1; UCPA-OR; UNQ6308
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210586 representing NM_020139 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGTCGACTTGATGGGAAAGTCATCATCCTGACGGCCGCTGCTCAGGGGATTGGCCAAGCAGCTGCCT
TAGCTTTTGCAAGAGAAGGTGCCAAAGTCATAGCCACAGACATTAATGAGTCCAAACTTCAGGAAGTGA
AAAGTACCGGGTATTCAAACCTCGTGCCTTGATGTCACAAAGAAGAAACAAATTGATCAGTTTGCCAA
GAAGTTGAGAGACTTGATGTTCTCTTAATGTTGCTGGTTTTGTCCATCATGGAAGTGCCTGGATTGTG
AGGAGAAAGACTGGGACTTCTCGATGAATCTCAATGTGCGCAGCATGTACCTGATGATCAAGGCATTCTCT
TCCTAAAATGCTTGCTCAGAAATCTGGCAATATTCAACATGTCTTCTGTGGCTTCCAGCGTCAAAGGA
GTTGTGAACAGATGTGTGTACAGCACAACCAAGGCAGCCGTGATTGGCCTCACAAAATCTGTGGCTGCAG
ATTTTATCCAGCAGGGCATCAGGTGCAACTGTGTGTGCCAGGAACAGTTGATACGCCATCTCTACAAGA
AAGAATACAAGCCAGAGGAAATCCTGAAGAGGCACGGAATGATTTCTGAAGAGACAAAAGCAGGGAAGA
TTCGCAACTGCAGAAGAAATAGCCATGCTCTGCGTGTATTTGGCTTCTGATGAATCTACTTATGTAAGT
GTAACCTGTATCATTGATGGAGGCTGGAGCTTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210586 representing NM_020139
Red=Cloning site Green=Tags(s)

MGRLDGKVIILTAAAQGIGQAAALAFAREGAKVIATDINESKLQELEKYPGIQTRVLDVTKKKQIDQFAN
 EVERLDVLFNVAGFVHHGTVLDCEEKDWDFSMNLNVRSMYLMIKAF LPKMLAQKSGNIINMSSVASSVKG
 VVNRVCVYSTTKAAVIGLTKSVAADFIQQGIRCNCVCPGTVDTPSLQERIQARGNPEEARNDFLKRQKTGR
 FATAEEIAMLCVYLASDESTYVTGNPVIIDGGWSL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020139

ORF Size: 735 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_020139.3](#), [NP_064524.3](#)

RefSeq Size: 2936 bp

RefSeq ORF: 738 bp

Locus ID: 56898

UniProt ID: [Q9BUT1](#)

Cytogenetics: 4q24

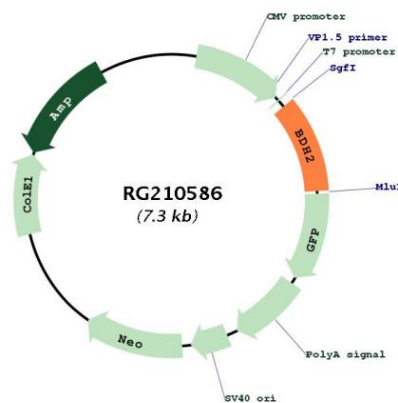
Domains: adh_short

Protein Families: Druggable Genome

Protein Pathways: Butanoate metabolism, Metabolic pathways, Synthesis and degradation of ketone bodies

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 (PubMed:16380372).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG210586