

Product datasheet for RC212662

HMBS (NM_001024382) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HMBS (NM_001024382) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HMBS
Synonyms:	PBG-D; PBGD; PORC; UPS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212662 representing NM_001024382 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGAGTGATTTCGGTACCCGCAAGAGCCAGCTTGCTCGCATACAGACGGACAGTGTGGTGGCAA
CATTGAAAGCCTCGTACCCTGGCTGCAGTTTGAATCATTGCTATGTCCACCACAGGGACAAGATTCT
TGATACTGCACCTCTAAGATTGGAGAGAAAAGCCTGTTACCAAGGAGCTTGAACATGCCCTGGAGAAG
AATGAAGTGGACCTGGTGTTCCTCTGAAGGACCTGCCACTGTGCTTCTCCTGGCTTACCATCG
GAGCCATCTGCAAGCGGAAAACCTCATGATGCTGTTGCTTTACCCAAAATTTGTTGGGAAGACCT
AGAAACCTGCCAGAGAAGAGTGTGGTGGGAACAGCTCCCTGCCAAGAGCAGCCAGCTGCAGAGAAAG
TTCCCGCATCTGGAGTTCAGGAGTATTCGGGAAAACCTCAACACCCGGCTTCGGAAGCTGGACGAGCAGC
AGGAGTTCAGTGCCATCATCCTGGCAACAGCTGGCCTGCAGCGCATGGGCTGGCACAACCGGGTGGGGCA
GATCCTGCACCCTGAGGAATGCATGATGCTGTGGCCAGGGGCCTTGGCGTGGAAAGTGCAGCCAAG
GACCAGGACATCTGGATCTGGTGGTGTGCTGCACGATCCCAGACTCTGCTTCGCTGCATCGTGAAA
GGGCTTCTGAGGCACCTGGAAGGAGGCTGCAGTGTGCCAGTAGCCGTGCATACAGCTATGAAGGATGG
GCAACTGTACCTGACTGGAGGAGTCTGGAGTCTAGACGGCTCAGATAGCATACAAGAGACCATGCAGGCT
ACCATCCATGTCCTGCCAGCATGAAGATGGCCCTGAGGATGACCCACAGTTGGTGGTGGTGGTGGTGGT
GTAACATTCCACGAGGGCCAGTTGGCTGCCAGAACTTGGGCATCAGCCTGGCCAACTTGTGCTGAG
CAAAGGAGCCAAAACATCCTGGATGTTGCACGGCAGCTTAACGATGCCCAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC212662 representing NM_001024382
Red=Cloning site Green=Tags(s)

MRVIRVGTRKSQLARIQTDSVVATLKASYPLQFEI IAMSTTGDKILDTALSKIGEKSFLTKELEHALEK
 NEVDLVVHSLKDLPTVLPFGFTIGAICKRENPHDAVVVHPKFVGKTLETLPKSVVGTSSLRRAAQLQRK
 FPHLEFRSIRGNLNTLRKRLDEQQEFSAIILATAGLQRMGWHNRVGOILHPEECMYAVGQALGVEVRAK
 DQDILDVLGVLDHPETLLRCIAERAFLRHLEGGCSVPVAVHTAMKDGQLYLTGGVWSLDGSDSIQETMQA
 TITHVPAQHEDGPEDDPQLVGITARNIPRGPQLAAQNLGISLANLLLSKGAKNILDVARQLNDAH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1551_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001024382

ORF Size: 1032 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_001024382.2](#)

RefSeq Size: 1428 bp

RefSeq ORF: 1035 bp

Locus ID: 3145

UniProt ID: [P08397](#)

Cytogenetics: 11q23.3

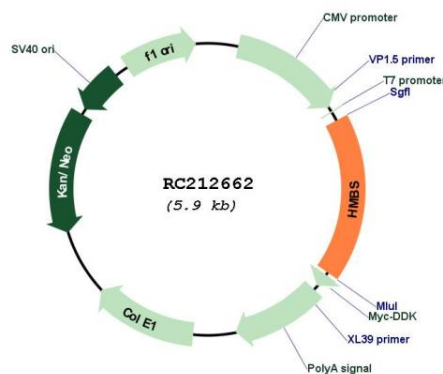
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Porphyrin and chlorophyll metabolism

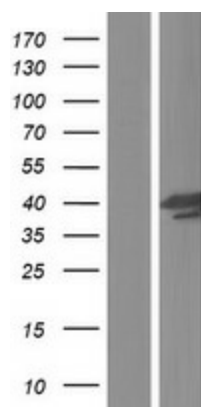
MW: 37.5 kDa

Gene Summary: This gene encodes a member of the hydroxymethylbilane synthase superfamily. The encoded protein is the third enzyme of the heme biosynthetic pathway and catalyzes the head to tail condensation of four porphobilinogen molecules into the linear hydroxymethylbilane. Mutations in this gene are associated with the autosomal dominant disease acute intermittent porphyria. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

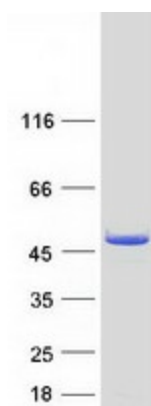
Product images:



Circular map for RC212662



Western blot validation of overexpression lysate (Cat# [LY422504]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212662 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HMBS protein (Cat# [TP312662]). The protein was produced from HEK293T cells transfected with HMBS cDNA clone (Cat# RC212662) using MegaTran 2.0 (Cat# [TT210002]).