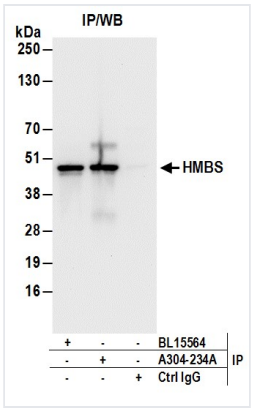
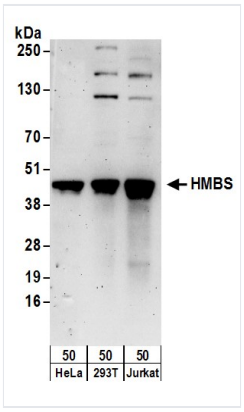
# HMBS Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | HMBS, Polyclonal Antibody |
| **Full Product Name** | Rabbit anti-HMBS Antibody, Affinity Purified |
| **Product Gene Name** | anti-HMBS antibody |
| **Product Synonym Names** | porphobilinogen deaminase; uroporphyrinogen I synthetase; uroporphyrinogen I synthase; UPS; porphyria, acute; PORC; PBG-D; PBGD; Hydroxymethylbilane synthase; HMBS; Chester type; pre-uroporphyrinogen synthase; Porphobilinogen deaminase; hydroxymethylbilane synthase |
| **Clonality** | Polyclonal |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Liquid. Whole IgG. Tris-citrate/phosphate buffer, pH 7 to 8 containing 0.09% Sodium Azide |
| **Purity/Purification** | Antigen Affinity Purified |
| **Concentration** | 1000ug/ml (lot specific) |
| **Preparation and Storage** | Store at 2-8 degree C<br>Shelf Life: 1 year from date of receipt |
| **Molecular Weight** | 33,264 Da |
| **OMIM** | phenotype 609806 |
| **3D Structure** | ModBase 3D Structure for P08397 |
| **Immunogen** | Between 311 and C-terminus |
| **Conjugation** | Unconjugated |
| **Product Categories/Family for anti-HMBS antibody** | Primary Antibodies |
| **Applications Tested/Suitable for anti-HMBS antibody** | Western Blot (WB), Immunoprecipitation (IP) |
| **Application Notes for anti-HMBS antibody** | WB: 1:2000-1:10,000<br>IP: 6ug/mg lysate |
| **Related Product Information for anti-HMBS antibody** | Hydroxymethylbilane synthase (HMBS) is a member of the hydroxymethylbilane synthase superfamily. HMBS is the third enzyme of the heme biosynthetic pathway and catalyzes the head to tail condensation of four porphobilinogen molecules into the linear hydroxymethylbilane [taken from NCBI Entrez Gene (Gene ID: 3145)]. |
| **Other Notes** | Small volumes of anti-HMBS antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for HMBS purchase** | MBS3904434 is an antibody targeting HMBS. Also known as Rabbit anti-HMBS Antibody, Affinity Purified. Reactive in Human. Host: Rabbit. |




**Immunoprecipitation (IP) of anti-HMBS antibody**
Detection of human HMBS by western blot of immunoprecipitates. Samples: Whole cell lysate (1 mg for IP; 20% of IP loaded) from 293T cells. Antibodies: Affinity purified rabbit anti-HMBS antibody MBS3904434 (lot MBS3904434-1) used for IP at 6 ug/mg lysate. HMBS was also immunoprecipitated by rabbit anti-HMBS antibody BL15564. For blotting immunoprecipitated HMBS, MBS3904434 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.




**Western Blot (WB) of anti-HMBS antibody**
Detection of human HMBS by western blot. Samples: Whole cell lysate (50 ug) from HeLa, HEK293T, and Jurkat cells. Antibodies: Affinity purified rabbit anti-HMBS antibody MBS3904434 (lot MBS3904434-1) used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HMBS. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 20149500 |
| **NCBI GeneID** | 3145 |
| **NCBI Accession #** | NP_000181.2 |
| **UniProt Primary Accession #** | P08397 |
| **UniProt Secondary Accession #** | P08396; Q16012; A8K2L0; G3V1P4; G5EA58 |
| **UniProt Related Accession #** | P08397 |
| **GenBank Nucleotide #** | NM_000190.3 |
| **NCBI Official Full Name** | porphobilinogen deaminase isoform 1 |
| **NCBI Official Synonym Full Names** | hydroxymethylbilane synthase |
| **NCBI Official Symbol** | HMBS |
| **NCBI Official Synonym Symbols** | UPS; PBGD; PORC; PBG-D |
| **UniProt Protein Name** | Porphobilinogen deaminase |
| **UniProt Synonym Protein Names** | Hydroxymethylbilane synthase; HMBS; Pre-uroporphyrinogen synthase |
| **Protein Family** | Porphobilinogen deaminase |
| **UniProt Gene Name** | HMBS |
| **UniProt Synonym Gene Names** | PBGD; UPS; PBG-D; HMBS |
| **UniProt Entry Name** | HEM3_HUMAN |
| **NCBI Protein Information** | porphobilinogen deaminase; porphyria, acute; Chester type; pre-uroporphyrinogen synthase; uroporphyrinogen I synthase; uroporphyrinogen I synthetase |
| **NCBI Summary for HMBS** | 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] |

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| **UniProt Comments for HMBS** | HMBS: Tetrapolymerization of the monopyrrole PBG into the hydroxymethylbilane pre-uroporphyrinogen in several discrete steps. Defects in HMBS are the cause of acute intermittent porphyria (AIP). AIP is a form of porphyria. Porphyrias are inherited defects in the biosynthesis of heme, resulting in the accumulation and increased excretion of porphyrins or porphyrin precursors. They are classified as erythropoietic or hepatic, depending on whether the enzyme deficiency occurs in red blood cells or in the liver. AIP is an autosomal dominant form of hepatic porphyria characterized by acute attacks of neurological dysfunctions with abdominal pain, hypertension, tachycardia, and peripheral neuropathy. Most attacks are precipitated by drugs, alcohol, caloric deprivation, infections, or endocrine factors. Belongs to the HMBS family. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: EC 2.5.1.61; Cofactor and Vitamin Metabolism - porphyrin and chlorophyll; Transferase; Mitochondrial<br><br>Chromosomal Location of Human Ortholog: 11q23.3<br><br>Cellular Component: cytosol<br><br>Molecular Function: hydroxymethylbilane synthase activity<br><br>Biological Process: porphyrin metabolic process; protoporphyrinogen IX biosynthetic process; peptidyl-pyrromethane cofactor linkage; heme biosynthetic process<br><br>Disease: Porphyria, Acute Intermittent |
| **Research Articles on HMBS** | **1.** Conformational stability and activity of hydroxymethylbilane synthase (HMSB) and the acute intermittent porphyria K132N and V215E HMSB mutations. |
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