

🕜 Tel: +1-301-363-4651 🛛 🖂 Email: cusabio@cusabio.com 🥃 Website: www.cusabio.com 🧉

## HMBS Recombinant Monoclonal Antibody

Product Code	CSB-RA998378A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P08397
Immunogen	A synthesized peptide derived from human HMBS
Species Reactivity	Human
<b>Tested Applications</b>	ELISA, WB; Recommended dilution: WB:1:500-1:2000
Relevance	As part of the heme biosynthetic pathway, catalyzes the sequential polymerization of four molecules of porphobilinogen to form hydroxymethylbilane, also known as preuroporphyrinogen (PubMed:18936296, PubMed:19138865, PubMed:23815679). Catalysis begins with the assembly of the dipyrromethane cofactor by the apoenzyme from two molecules of porphobilinogen or from preuroporphyrinogen. The covalently linked cofactor acts as a primer, around which the tetrapyrrole product is assembled. In the last step of catalysis, the product, preuroporphyrinogen, is released, leaving the cofactor bound to the holodeaminase intact (PubMed:18936296). {ECO:0000269 PubMed:18936296, ECO:0000269 PubMed:19138865, ECO:0000269 PubMed:23815679}.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
lsotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cell biology; Metabolism; Signal transduction
Gene Names	HMBS
Clone No.	8G12
Image	

**CUSABIO**<sup>®</sup> Your good partner in biology research

1

## **CUSABIO TECHNOLOGY LLC**



🕜 Tel: +1-301-363-4651 🛛 🖾 Email: cusabio@cusabio.com 🛛 🥑 Website: www.cusabio.com 🌘



Western Blot

Positive WB detected in: MCF-7 whole cell lysate, K562 whole cell lysate, Jurkat whole cell lysate, THP-1 whole cell lysate, U937 whole cell lvsate All lanes: HMBS antibody at 1:2000 Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 40, 38, 35, 34kDa

Observed band size: 36-55 kDa

## Description

The production of the HMBS recombinant monoclonal antibody involves a meticulous and standardized process to ensure its quality and specificity. Initially, B cells are isolated from an immunized animal, utilizing a synthesized peptide derived from human HMBS as the immunogen. Subsequently, total RNA is extracted from the isolated B cells and converted into cDNA through reverse transcription. The HMBS antibody genes are amplified using PCR with specific primers targeting the antibody constant regions and then inserted into an expression vector. This vector is introduced into host cells, allowing for the production of the HMBS recombinant monoclonal antibody. The antibody is collected from the cell culture supernatant and subjected to affinity chromatography for purification, resulting in a highly purified formulation. Rigorous characterization assays, including ELISA and WB analysis, are performed to confirm the antibody's specificity and functionality, ensuring its precise recognition of human HMBS protein.