

## UK Office

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**Research Use Only. Not for  
diagnostic or therapeutic use.**

## EB07943 - Goat Anti-BHMT Antibody

Size: 100µg specific antibody in 200µl



### Target Protein

**Principal Names:** BHMT, betaine-homocysteine methyltransferase

**Official Symbol:** BHMT

**Accession Number(s):** NP\_001704.1

**Human GeneID(s):** [635](#)

**Non-Human GeneID(s):** 12116 (mouse), 81508 (rat)

### Immunogen

Peptide with sequence C-EQQLKELFEKQK, from the C Terminus of the protein sequence according to NP\_001704.1 .

Please note the [peptide](#) is available for sale.

### Purification and Storage

Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.

Aliquot and store at -20°C. Minimize freezing and thawing.

### Applications Tested

**Peptide ELISA:** antibody detection limit dilution 1:16000.

**Western blot:** Approx 45kDa band observed in Rat Liver lysates (calculated MW of 44.9kDa according to human NP\_001704.1, 45.0kDa according to mouse NP\_057877.1 and rat NP\_110477.1). This product has been successfully used in WB on Human (PMID: 27320863). This product has been successfully used in WB on Mouse (PMID:28605831, 23807810 and 22209966). This product has been successfully used in WB on Rat (Choi et al. Journal of Functional Foods 44 (2018) 65-73 and PMID:30746538). In transfected HEK293 transiently expressing BHMT a band of approx. 49kDa is observed. This band is not observed in the non-transfected HEK293. Recommended concentration: 0.03-0.1µg/ml. Primary incubation was 1 hour.

**IHC:** Paraffin embedded Human Liver and Kidney. Recommended concentration: 5µg/ml.

### Species Reactivity

**Tested:** Human, Mouse, Rat

**Expected from sequence similarity:** Human, Mouse, Rat, Dog

### Specific References

**This antibody has been successfully used in Western blot on Rat:**

Jong Deok Na, Yeo Jin Choi, Doo Sung Jun and Young Chul Ki  
Alleviation of paraquat-induced oxidative lung injury by betaine via regulation of sulfurcontaining amino acid metabolism despite the lack of betaine-homocysteine methyltransferase (BHMT) in the lung  
Food Funct. 2019 Feb 20;10(2):1225-1234  
PMID: 30746538

**This antibody has been successfully used in Western blot on Rat:**

Yeo Jin Choi, Jong Deok Na, Doo Sung Jun, Young Chul Kim.  
Protective effect of betaine against galactosamine-induced acute liver injury in rats  
Journal of Functional Foods 44 (2018) 65-73.

PMID: 0

**This antibody has been successfully used in Western blot on Mouse:**

Jeon J, Oh JJ, Kwak HC, Yun H, Kim HC, Kim YM, Oh SJ, Kim SK.  
Age-Related Changes in Sulfur Amino Acid Metabolism in Male C57BL/6 Mice.  
Biomol Ther (Seoul). 2018 Mar 1;26(2):167-174.

PMID: 28605831

**This antibody has been successfully used in Western blot on Mouse:**

Kwon DY, Jung YS, Kim SJ, Kim YS, Choi DW, Kim YC.  
Alterations in sulfur amino acid metabolism in mice treated with silymarin:  
a novel mechanism of its action involved in enhancement of  
the antioxidant defense in liver.

Planta Med. 2013 Aug;79(12):997-1002.

PMID: 23807810

**This antibody has been successfully used in Western blot on Human and Rat:**

Ahn CW, Jun DS, Na JD, Choi YJ, Kim YC.

Alleviation of hepatic fat accumulation by betaine involves reduction of homocysteine via up-regulation of betaine homocysteine methyltransferase.  
Biochem Biophys Res Commun. 2016 Aug 26;477(3):440-7.

PMID: 27320863

**This antibody has been successfully used on Rat:**

Kim YC, Kwon do Y, Kim JH.

Alterations in the metabolomics of sulfur-containing substances in rat kidney by betaine.  
Amino Acids. 2014 Apr;46(4):963-8.

PMID: 24390397

**This antibody has been successfully used on Mouse:**

Yun KU, Ryu CS, Lee JY, Noh JR, Lee CH, Lee HS, Kang JS, Park SK, Kim BH, Kim SK.  
Hepatic metabolism of sulfur amino acids in db/db mice.

Food Chem Toxicol. 2013 Mar;53:180-6.

PMID: 23220616

**This antibody has been successfully used in Western blot on Mouse:**

Yun KU, Ryu CS, Oh JM, Kim CH, Lee KS, Lee CH, Lee HS, Kim BH, Kim SK.  
Plasma homocysteine level and hepatic sulfur amino acid metabolism in mice fed a  
high-fat diet.

Eur J Nutr. 2012 Jan 1.

PMID: 22209966

**This antibody has been successfully used on Human:**

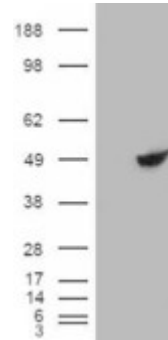
Ryu CS, Kwak HC, Lee KS, Kang KW, Oh SJ, Lee KH, Kim HM, Ma JY, Kim SK.  
Sulfur amino acid metabolism in doxorubicin-resistant breast cancer cells.

Toxicol Appl Pharmacol. 2011 Jun 14.

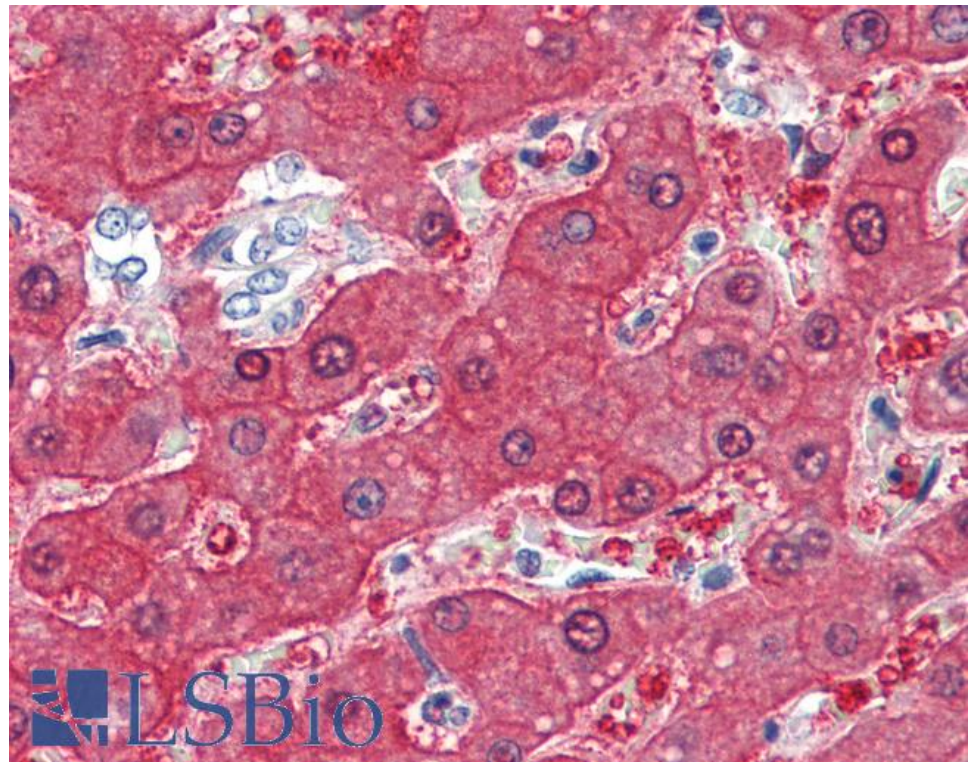
PMID: 21703291



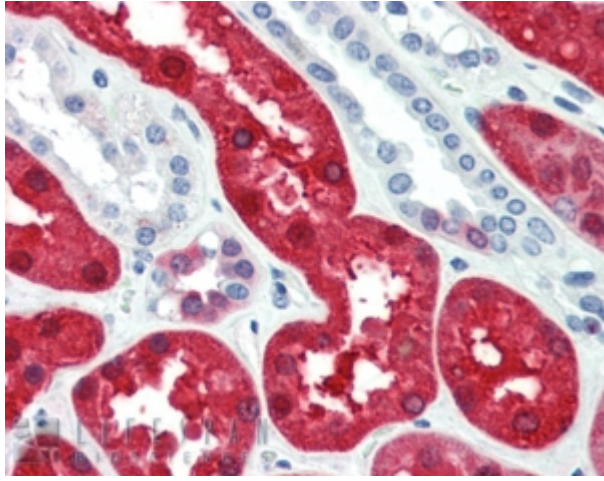
EB07943 (0.03µg/ml) staining of Rat Liver lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



HEK293 overexpressing BHMT RC203148) and probed with EB07943 (mock transfection in first lane), tested by Origene.



EB07943 (5µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB07943 (5µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.