

## 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

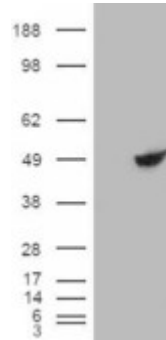
**This antibody has been successfully used on Human:**

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.

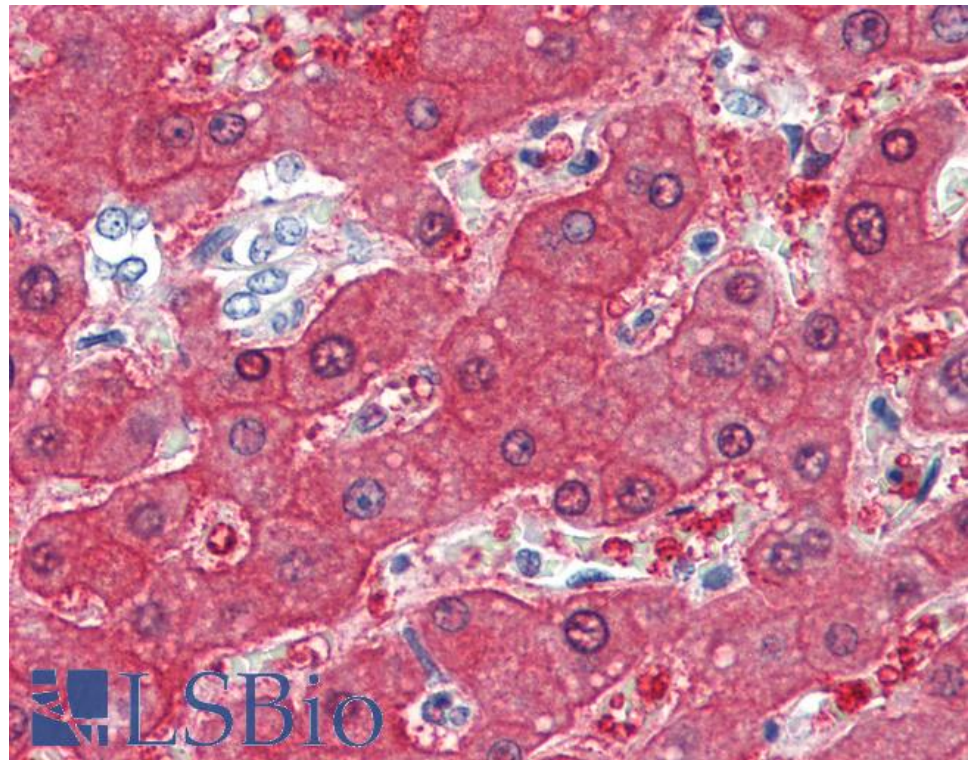
PMID: 21703291



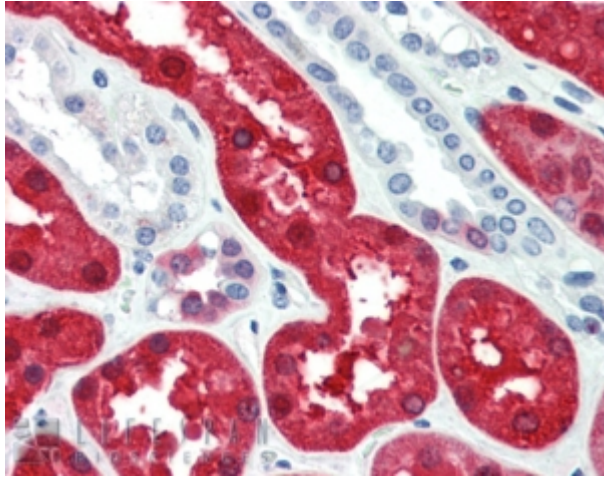
EB07943 (0.03 $\mu$ g/ml) staining of Rat Liver lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



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



EB07943 (5 $\mu$ g/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.