

Human BHMT ELISA Kit ab221830

Recombinant SimpleStep ELISA®

[5 Images](#)

Overview

Product name Human BHMT ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

| Sample | n | Mean | SD | CV% |
|---------|---|------|----|------|
| Overall | 3 | | | 3.1% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|---------|---|------|----|------|
| Overall | 5 | | | 8.3% |

Sample type Tissue Extracts

Assay type Sandwich (quantitative)

Sensitivity 9.34 pg/ml

Range 62.5 pg/ml - 4000 pg/ml

Recovery

Sample specific recovery

| Sample type | Average % | Range |
|-----------------|-----------|-------------|
| Tissue Extracts | 107 | 105% - 109% |

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

Human BHMT ELISA Kit (ab221830) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of BHMT protein in tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human BHMT with 9.34 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This

approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

BHMT is a zinc metalloenzyme that belongs to the methyltransferase family. Its function is to catalyze the transfer of a methyl group from trimethylglycine and a hydrogen ion from homocysteine to produce dimethylglycine and methionine. It is involved in the metabolism of glycine, serine, threonine and methionine.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Reagents

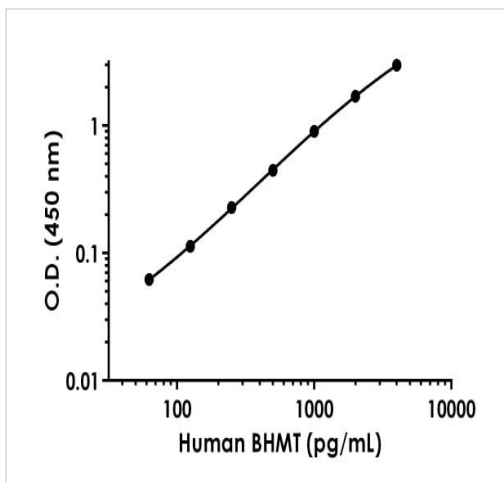
Properties

Storage instructions Store at +4°C. Please refer to protocols.

| Components | 1 x 96 tests |
|---|--------------|
| 10X Human BHMT Capture Antibody | 1 x 600µl |
| 10X Human BHMT Detector Antibody | 1 x 600µl |
| 10X Wash Buffer PT (ab206977) | 1 x 20ml |
| 5X Cell Extraction Buffer PTR (ab193970) | 1 x 10ml |
| Antibody Diluent 4BI | 1 x 6ml |
| Human BHMT Lyophilized Recombinant Protein | 2 vials |
| Plate Seals | 1 unit |
| Sample Diluent NS (ab193972) | 1 x 12ml |
| SimpleStep Pre-Coated 96-Well Microplate (ab206978) | 1 unit |
| Stop Solution | 1 x 12ml |
| TMB Development Solution | 1 x 12ml |

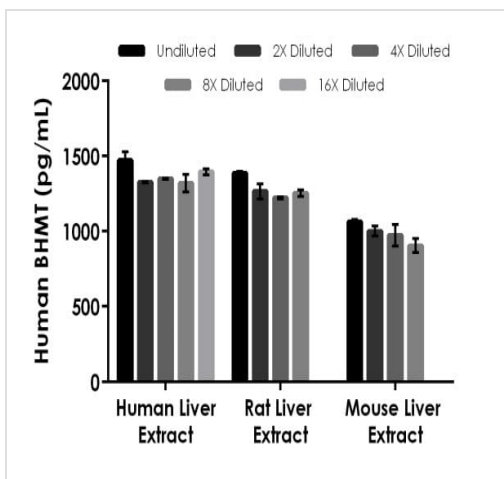
| | |
|------------------------------|--|
| Function | Involved in the regulation of homocysteine metabolism. Converts betaine and homocysteine to dimethylglycine and methionine, respectively. This reaction is also required for the irreversible oxidation of choline. |
| Tissue specificity | Found exclusively in liver and kidney. |
| Pathway | Amine and polyamine degradation; betaine degradation; sarcosine from betaine: step 1/2. Amino-acid biosynthesis; L-methionine biosynthesis via de novo pathway; L-methionine from L-homocysteine (BhmT route): step 1/1. |
| Sequence similarities | Contains 1 Hcy-binding domain. |
| Cellular localization | Cytoplasm. |

Images



Background-subtracted data values (mean +/- SD) are graphed.

Example of human BHMT standard curve in 1X Cell Extraction Buffer PTR.



The concentrations of BHMT standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean BHMT concentration was determined to be 1373 pg/mL in human liver extracts, 1282 pg/mL in rat liver extracts and 985 pg/mL in mouse liver extracts.

Interpolated concentrations of native BHMT in human, rat and mouse samples based on a 31, 6.3, and 0.5 µg/mL extract load.

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity

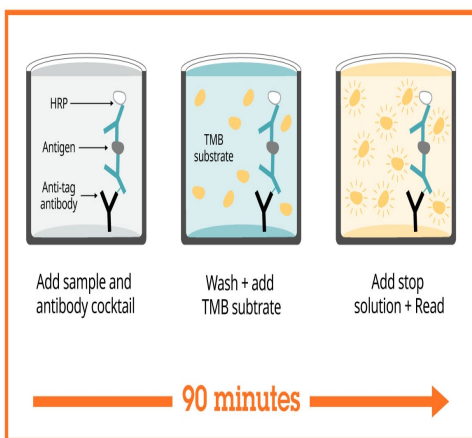


Ethical standards compliant
Animal-free production

Sandwich ELISA - Human BHMT ELISA Kit

(ab221830)

To learn more about the advantages of recombinant antibodies see [here](#).



Sandwich ELISA - Human BHMT ELISA Kit

(ab221830)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Get more done with SimpleStep ELISA



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Human BHMT ELISA Kit
(ab221830)

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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