# Product datasheet

## Anti-Cystathionase/CTH antibody ab54573

### 5 References  4 Images

#### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Cystathionase/CTH antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Mouse monoclonal to Cystathionase/CTH</td>
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<tr>
<td><strong>Host species</strong></td>
<td>Mouse</td>
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<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: WB, IHC-P, ICC/IF, Flow Cyt</td>
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<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Human</td>
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<tr>
<td><strong>Immunogen</strong></td>
<td>Recombinant full length protein corresponding to Human Cystathionase/CTH aa 1-406.</td>
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<tr>
<td><strong>General notes</strong></td>
<td>This product was changed from ascites to tissue culture supernatant on 12/3/19. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. This product was previously labelled as Cystathionase</td>
</tr>
</tbody>
</table>

#### Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.</td>
</tr>
</tbody>
</table>
| **Storage buffer** | Preservative: None  
PBS, pH 7.2 |
| **Purity**     | Tissue culture supernatant |
| **Clonality**  | Monoclonal |
| **Isotype**    | IgG1 |
| **Light chain type** | kappa |

#### Applications

Our Abpromise guarantee covers the use of ab54573 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
Catalyzes the last step in the transsulfuration pathway from methionine to cysteine. Has broad substrate specificity. Converts cystathionine to cysteine, ammonia and 2-oxobutanoate. Converts two cysteine molecules to lanthionine and hydrogen sulfide. Can also accept homocysteine as substrate. Specificity depends on the levels of the endogenous substrates. Generates the endogenous signaling molecule hydrogen sulfide (H2S), and so contributes to the regulation of blood pressure.

Pathway
Amino-acid biosynthesis; L-cysteine biosynthesis; L-cysteine from L-homocysteine and L-serine: step 2/2.

Involvement in disease
Defects in CTH are the cause of cystathioninuria (CSTNU) [MIM:219500]. It is an autosomal recessive phenotype characterized by abnormal accumulation of plasma cystathionine, leading to increased urinary excretion.

Sequence similarities
Belongs to the trans-sulfuration enzymes family.

Post-translational modifications
Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization
Cytoplasm.

Images

Western blot - Anti-Cystathionase/CTH antibody (ab54573) at 1ug/lane + K-562 cell lysate at 25ug/lane.

This image was generated using the ascites version of the product.
Cystathionase/CTH antibody (ab54573) used in immunohistochemistry at 3µg/ml on formalin fixed and paraffin embedded human colon.

**This image was generated using the ascites version of the product.**

ICC/IF image of ab54573 stained MCF7 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1% BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab54573, 5µg/ml) overnight at +4°C. The secondary antibody (green) was ab96879, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

**This image was generated using the ascites version of the product.**

Overlay histogram showing K562 cells stained with ab54573 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab54573, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in K562 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

**This image was generated using the ascites version of the product.**
Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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