

**Anti-CBS Antibody**  
**Catalog # ABO12726****Specification**

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**Anti-CBS Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | <b>WB, IHC-P</b>       |
| Primary Accession | <a href="#">P35520</a> |
| Host              | <b>Rabbit</b>          |
| Reactivity        | <b>Human, Rat</b>      |
| Clonality         | <b>Polyclonal</b>      |
| Format            | <b>Lyophilized</b>     |

**Description**

Rabbit IgG polyclonal antibody for Cystathionine beta-synthase(CBS) detection. Tested with WB, IHC-P in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-CBS Antibody - Additional Information**

**Gene ID** 102724560;875

**Other Names**

Cystathionine beta-synthase, 4.2.1.22, Beta-thionase, Serine sulfhydrase, CBS

**Calculated MW**

60587 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Cytoplasm . Nucleus .

**Tissue Specificity**

In the adult strongly expressed in liver and pancreas, some expression in heart and brain, weak expression in lung and kidney. In the fetus, expressed in brain, liver and kidney.

**Protein Name**

Cystathionine beta-synthase

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

E.coli-derived human CBS recombinant protein (Position: A331-K551). Human CBS shares 83% amino acid (aa) sequence identity with both mouse and rat CBS.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the cysteine synthase/cystathionine beta- synthase family.

**Anti-CBS Antibody - Protein Information****Name** CBS**Function**

Hydro-lyase catalyzing the first step of the transsulfuration pathway, where the hydroxyl group of L-serine is displaced by L- homocysteine in a beta-replacement reaction to form L-cystathionine, the precursor of L-cysteine. This catabolic route allows the elimination of L-methionine and the toxic metabolite L-homocysteine (PubMed:<a href="http://www.uniprot.org/citations/20506325" target="\_blank">20506325</a>, PubMed:<a href="http://www.uniprot.org/citations/23974653" target="\_blank">23974653</a>, PubMed:<a href="http://www.uniprot.org/citations/23981774" target="\_blank">23981774</a>). Also involved in the production of hydrogen sulfide, a gasotransmitter with signaling and cytoprotective effects on neurons (By similarity).

**Cellular Location**

Cytoplasm. Nucleus

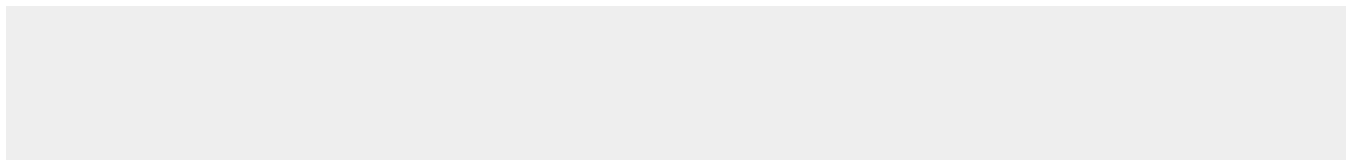
**Tissue Location**

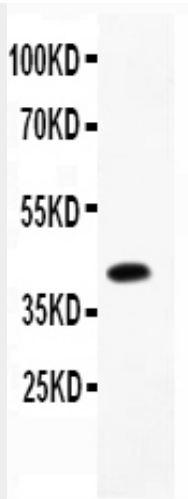
In the adult strongly expressed in liver and pancreas, some expression in heart and brain, weak expression in lung and kidney. In the fetus, expressed in brain, liver and kidney

**Anti-CBS Antibody - Protocols**

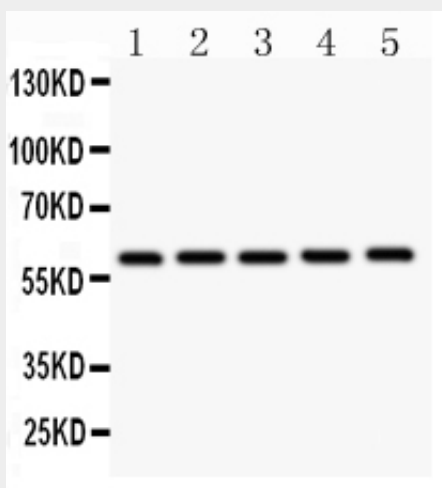
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

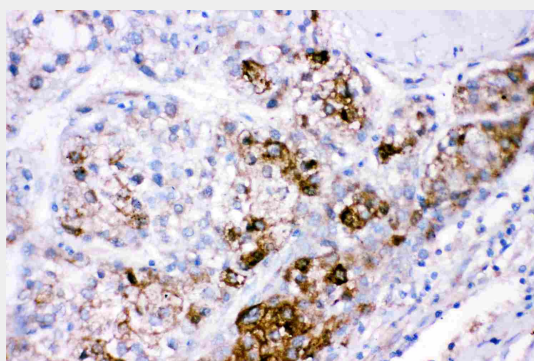
**Anti-CBS Antibody - Images**



Anti- CBS antibody, ABO12726, Western blotting All lanes: Anti CBS (ABO12726) at 0.5ug/ml WB: Recombinant human CBS Protein 0.5ng Predicted bind size: 42KD Observed bind size: 42KD



Anti- CBS antibody, ABO12726, Western blotting All lanes: Anti CBS (ABO12726) at 0.5ug/ml Lane 1: Rat Liver Tissue Lysate at 50ug Lane 2: Rat Brain Tissue Lysate at 50ug Lane 3: Hela Whole Cell Lysate at 40ug Lane 4: PANC Whole Cell Lysate at 40ug Lane 5: Hepg2 Whole Cell Lysate at 40ug Predicted bind size: 60KD Observed bind size: 60KD



Anti- CBS antibody, ABO12726, IHC(P) IHC(P): Human Liver Cancer Tissue

### Anti-CBS Antibody - Background

Cystathionine- $\beta$ -synthase, also known as CBS, is an enzyme that in humans is encoded by the CBS gene. It is mapped to 21q22.3 and contains 23 exons, ranging in size from 42 to 299 bp. CBS

catalyzes the first step of the transsulfuration pathway, from homocysteine to cystathionine. It uses the cofactor pyridoxal-phosphate (PLP) and can be allosterically regulated by effectors such as the ubiquitous cofactor S-adenosyl-L-methionine (adoMet). This enzyme belongs to the family of lyases, to be specific, the hydro-lyases, which cleave carbon-oxygen bonds. CBS is a multidomain enzyme composed of an N-terminal enzymatic domain and two CBS domains. The CBS gene is the most common locus for mutations associated with homocystinuria.