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Anti-CBS Antibody
Catalog # ABO12726

Specification

Anti-CBS Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P35520
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

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
Western blot, 0.1-0.5 µg/ml, Human, Rat

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 Na2HPO4, 0.05mg NaN3.

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 r˚Constitution, 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:20506325, PubMed:23974653, PubMed:23981774). 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 Cytomety
- Cell Culture

Anti-CBS Antibody - Images

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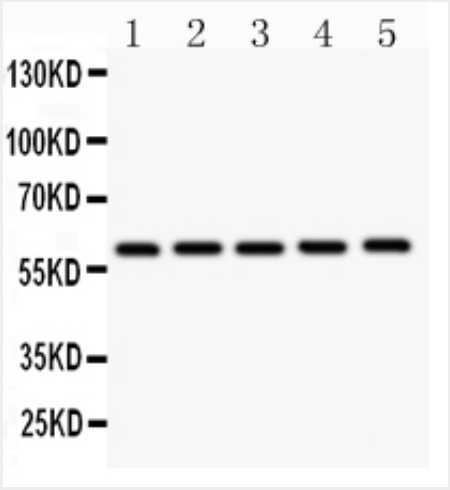
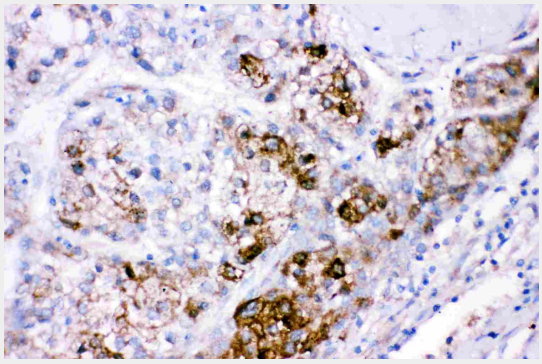
Anti- CBS antibody, ABO12726, Western blottingAll lanes: Anti CBS (ABO12726) at 0.5ug/mlWB: Recombinant human CBS Protein 0.5ngPredicted bind size: 42KDObserved bind size: 42KD



Anti- CBS antibody, ABO12726, Western blottingAll lanes: Anti CBS (ABO12726) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Brain Tissue Lysate at 50ugLane 3: Hela Whole Cell Lysate at 40ugLane 4: PANC Whole Cell Lysate at 40ugLane 5: Hepg2 Whole Cell Lysate at 40ugPredicted bind size: 60KDObserved bind size: 60KD



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

Anti-CBS Antibody - Background

Cystathionine-Î²-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.