10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-CBS Antibody

Catalog # ABO12726

Product Information

Application	WB, IHC-P
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.

Additional Information

Gene ID	875
Other Names	Cystathionine beta-synthase, 4.2.1.22, Beta-thionase, Serine sulfhydrase, CBS
Calculated MW	60587
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
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.

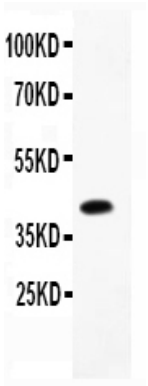
Protein Information

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

Background

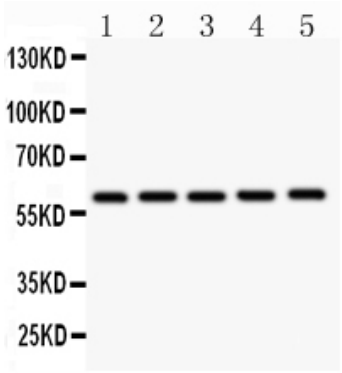
Cystathionine- □-synthase, also known as CBS, is an enzyme that in humans is encoded by the CBS gene. It is mapped to 21q22.3 and contains 23 exons, ranging in size from 42 to 299 bp. CBS catalyzes the first step of the transsulfuration pathway, from homocysteine to cystathionine. It uses the cofactor 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.

Images

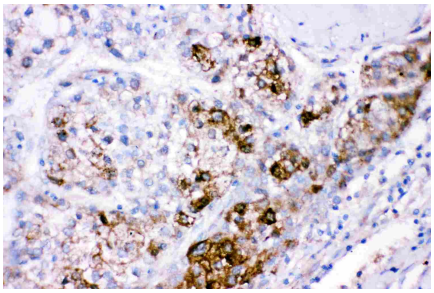


Anti- CBS antibody, ABO12726, Western blottingAll lanes: Anti CBS (ABO12726) at 0.5ug/mlWB: Recombinant human CBS Protein 0.5ngPredicted bind size: 42KDObserved bind size: 42KD

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.