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

Cystathionine β-Synthase Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11806

Specification

Cystathionine β-Synthase Antibody - Product Information

Application	**WB**
Primary Accession	P35520
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**60587**

Cystathionine β-Synthase Antibody - Additional Information

Gene ID 102724560;875

Positive Control	**WB: Hela cell lysates, rh-CBS**
Application & Usage	**WB: 1-4 µg**
Alias Symbol	**CBS**

Other Names
Beta-thionase, Serine sulfhydrase, Cystathionine beta-synthase

Appearance
Colorless liquid

Formulation
In PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin® and 50 % glycerol

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
Cystathionine β-Synthase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Cystathionine β-Synthase 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:23981774, PubMed:20506325, PubMed:23974653). Also involved in the production of hydrogen sulfide, a gasotransmitter with signaling and cytoprotective effects on neurons (By similarity).

Cellular Location
Cytoplasm. Nucleus

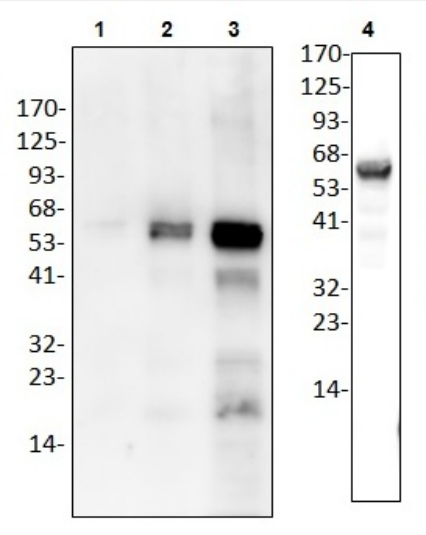
Tissue Location
In the adult strongly expressed in liver and pancreas, some expression in heart and brain, weak expression in lung and kidney. In the fetus, expressed in brain, liver and kidney

Cystathionine β-Synthase 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

Cystathionine β-Synthase Antibody - Images



Western blot analysis of CBS using anti-CBS antibody: Lane1-3(2ng, 10ng, 50ng); Lane4(Hela cell lysate)

Cystathionine β-Synthase Antibody - Background

Cystathionine β-synthase (CBS; E.C. 4.2.1.22) is a PLP-dependent enzyme which plays a central role in sulfur amino acid metabolism in eukaryotes. CBS catalyzes condensation between serine and homocysteine to generate cystathionine, which is then further processed by cystathionine γ-lyase to yield cysteine. The gene encoding CBS is essentially linked to the genetic disorders of

homocystinuria and Down syndrome. Homocystinuria is an autosomal recessive disease, characterized by high plasma levels of homocysteine, with clinical manifestations including mental retardation, thromboembolism and connective tissue defects. In addition, CBS also mediates synthesis of hydrogen sulfide by catalyzing condensation between cysteine and homocysteine. CBS is highly expressed in the nervous system, liver and kidney and is responsible for up to 95% of the H2S production in the brain.