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Cystathionine β-Synthase Antibody

Rabbit Polyclonal Antibody
Catalog # ABV11806

Product Information

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

Additional Information

Gene ID	875
Positive Control	WB: Hela cell lysates, rh-CBS
Application & Usage	WB: 1-4 □g
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.

Protein Information

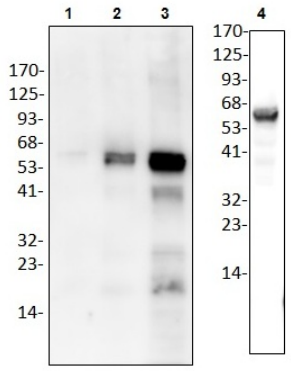
Name	CBS
Function	Hydro-lyase catalyzing the first step of the transsulfuration pathway, where the hydroxyl group of L-serine is displaced by L- homocysteine in a beta-replacement reaction to form L-cystathionine, the precursor of L-cysteine. This catabolic route allows the elimination of L-methionine 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 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.

Images



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

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