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CBS Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6959c

Product Information

Application	WB, IF, FC, IHC-P-Leica, E
Primary Accession	P35520
Other Accession	Q58H57
Reactivity	Human, Mouse, Rat
Predicted	Monkey, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	60587
Antigen Region	301-330

Additional Information

Gene ID	875
Other Names	Cystathionine beta-synthase, Beta-thionase, Serine sulfhydrase, CBS
Target/Specificity	This CBS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 301-330 amino acids from the Central region of human CBS.
Dilution	WB~~1:1000 IF~~1:25 FC~~1:25 IHC-P-Leica~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CBS Antibody (Center) 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

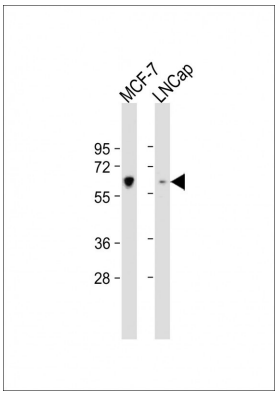
Background

CBS acts as a homotetramer to catalyze the conversion of homocysteine to cystathionine, the first step in the transsulfuration pathway. This protein is allosterically activated by adenosyl-methionine and uses pyridoxal phosphate as a cofactor. Defects in this gene can cause cystathionine beta-synthase deficiency (CBSD), which can lead to homocystinuria.

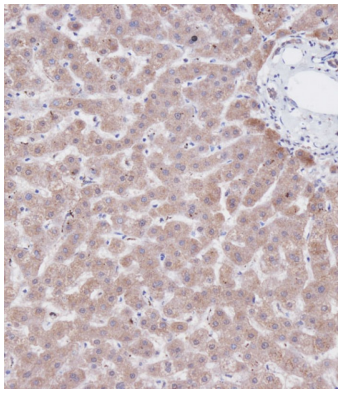
References

Ravel,C., et.al., PLoS ONE 4 (8), E6540 (2009)

Images

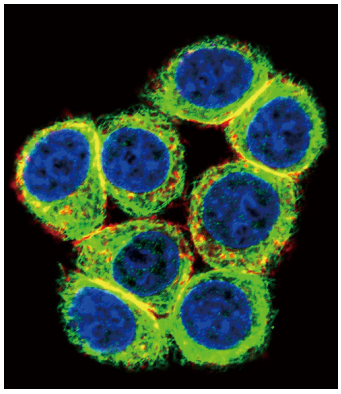


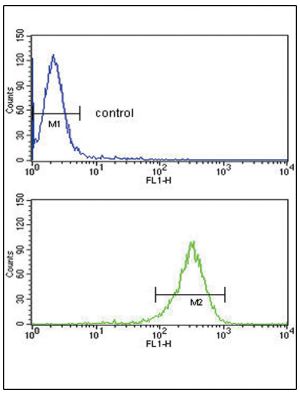
All lanes : Anti-CBS Antibody (Center) at 1:1000-2000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: LNCap whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 61 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of AP6959C on paraffin-embedded Human liver tissue was performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 15min at room temperature. Leica Bond Polymer Refine Detection was used as the secondary antibody.

Confocal immunofluorescent analysis of CBS Antibody (Center)(Cat#AP6959c) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).





CBS Antibody (Center) (Cat. #AP6959c) flow cytometric analysis of 293 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Endogenous HS producing enzymes are involved in apoptosis induction in clear cell renal cell carcinoma.

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