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CBS Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6959A

Specification

CBS Antibody (N-term) - Product Information

Application	**IF, WB, FC, IHC-P,E**
Primary Accession	P35520
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**104-133**

CBS Antibody (N-term) - Additional Information

Gene ID 102724560;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 104-133 amino acids from the N-terminal region of human CBS.

Dilution
IF~~1:10~50
WB~~1:1000
FC~~1:10~50
IHC-P~~1:50~100
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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CBS Antibody (N-term) - 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

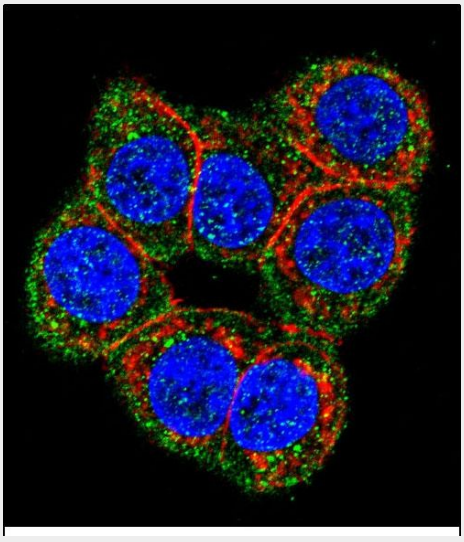
Tissue Location
In the adult strongly expressed in liver and pancreas, some expression in heart and brain, weak expression in lung and kidney. In the fetus, expressed in brain, liver and kidney

CBS Antibody (N-term) - 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

CBS Antibody (N-term) - Images



Confocal immunofluorescent analysis of CBS Antibody (N-term)(Cat#AP6959a) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

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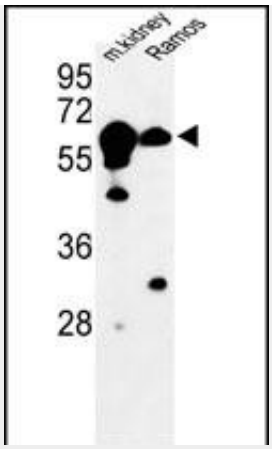
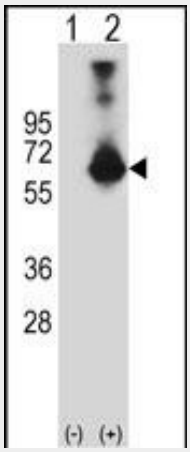
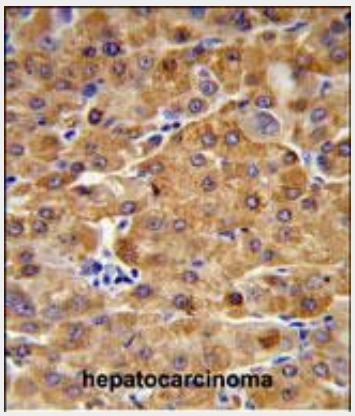


Western blot analysis of CBS Antibody (N-term) (Cat. #AP6959a) in mouse kidney tissue and Ramos cell line lysates (35ug/lane). CBS (arrow) was detected using the purified Pab.



Western blot analysis of CBS (arrow) using rabbit polyclonal CBS Antibody (N-term) (Cat. #AP6959a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CBS gene.



CBS Antibody (N-term) (Cat. #AP6959a) IHC analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CBS Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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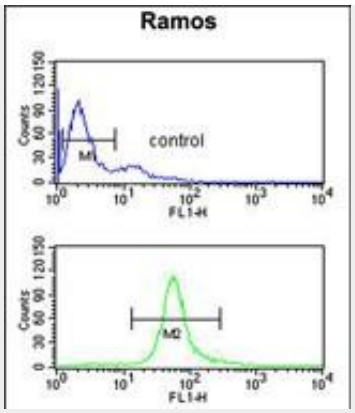

CBS Antibody (N-term) (Cat. #AP6959a) flow cytometric analysis of Ramos cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CBS Antibody (N-term) - 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.

CBS Antibody (N-term) - References

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

CBS Antibody (N-term) - Citations

- Tadalafil Integrates Nitric Oxide-Hydrogen Sulfide Signaling to Inhibit High Glucose-induced Matrix Protein Synthesis in Podocytes.
- Hydrogen sulfide inhibits high glucose-induced matrix protein synthesis by activating AMP-activated protein kinase in renal epithelial cells.