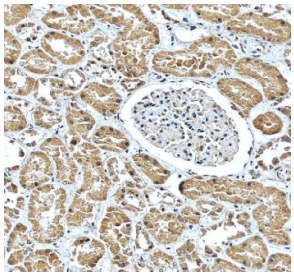
CBS Antibody / Cystathionine Beta Synthase (RQ8923)

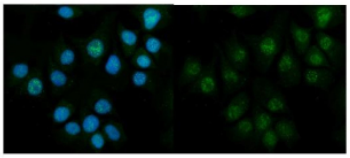
Catalog No.	Formulation	Size
RQ8923	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

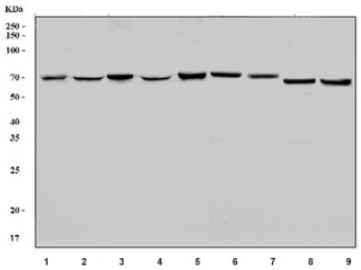
Availability	1-2 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P35520
Localization	Nuclear, cytoplasmic
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/million cells Immunofluorescence : 5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This CBS antibody is available for research use only.



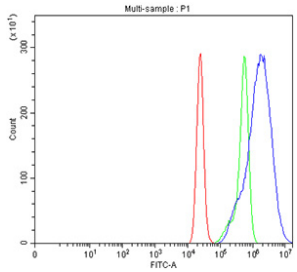
IHC staining of FFPE human kidney tissue with CBS antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of FFPE human MCF7 cells with CBS antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of 1) human Raji, 2) human HeLa, 3) human HEK293, 4) human HepG2, 5) human K562, 6) rat liver, 7) rat pancreas, 8) mouse liver and 9) mouse pancreas tissue lysate with CBS antibody. Predicted molecular weight ~61 kDa.



Flow cytometry testing of fixed and permeabilized human Caco-2 cells with CBS antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= CBS antibody.

Description

CBS (Cystathionine Beta Synthase) is a pyridoxal-5'-phosphate-dependent enzyme that plays a central role in the transsulfuration pathway. It catalyzes the condensation of serine and homocysteine to form cystathionine, an essential step in the synthesis of cysteine. This pathway is critical for maintaining sulfur amino acid metabolism, redox balance, and cellular homeostasis. A CBS antibody is commonly used in research focused on amino acid metabolism and associated disorders.

In addition to its role in cysteine biosynthesis, CBS activity contributes to the regulation of homocysteine levels. Elevated homocysteine is a known risk factor for cardiovascular disease, stroke, and neurodegeneration. Mutations in the CBS gene are responsible for homocystinuria, a metabolic disorder characterized by abnormal accumulation of homocysteine, highlighting the enzymeÃ¢Â€Â™s clinical significance. Researchers employ a CBS antibody to study enzyme expression and function in metabolic pathways and disease models.

CBS is also involved in producing hydrogen sulfide (H2S), a gaseous signaling molecule with important roles in vascular function, neuromodulation, and cytoprotection. Dysregulated H2S production has been associated with cancer, hypertension, and neurological disease. Investigating CBS with a CBS antibody allows researchers to better understand its enzymatic versatility and its impact on multiple signaling networks.

NSJ Bioreagents offers a high-quality CBS antibody validated for applications such as western blot, immunohistochemistry, and immunoprecipitation. Selecting a CBS antibody from NSJ Bioreagents ensures reliable detection and reproducible results in studies of sulfur metabolism, homocysteine regulation, and disease biology.

Application Notes

Optimal dilution of the CBS antibody should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids K102-E342) was used as the immunogen for the CBS antibody.

Storage

After reconstitution, the CBS antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.