
Product Name: KD-Validated Cystathionine Beta-Synthase Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01541**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 60.6kDa

Antigen Information

Gene Name	CBS CBS; Cystathionine Beta-Synthase; HIP4; Serine Sulfhydrase; Beta-Thionase; EC 4.2.1.22;
Alternative Names	Cystathionine Beta-Synthase-Like Protein; Cystathionine-Beta-Synthase; Methylcysteine Synthase; CBSL
Gene ID	875.0
SwissProt ID	P35520
Immunogen	A synthesized peptide derived from human CBS

Background

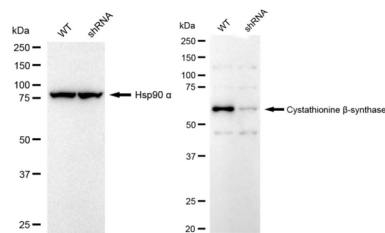
The protein encoded by this gene acts as a homotetramer to catalyze the conversion of homocysteine to cystathionine, the first

step in the transsulfuration pathway. The encoded protein is allosterically activated by adenosyl-methionine and uses pyridoxal phosphate as a cofactor. Defects in this gene can cause cystathionine beta-synthase deficiency (CBS), which can lead to homocystinuria. This gene is a major contributor to cellular hydrogen sulfide production. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Feb 2016]

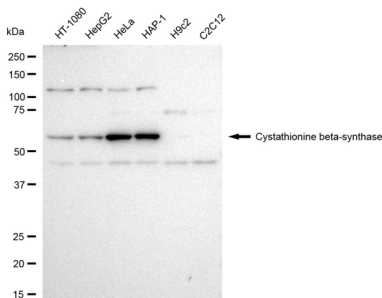
Research Area

Signal Transduction,Cancer,Metabolism

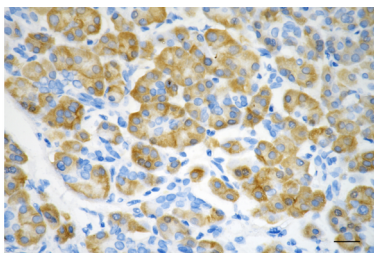
Image Data



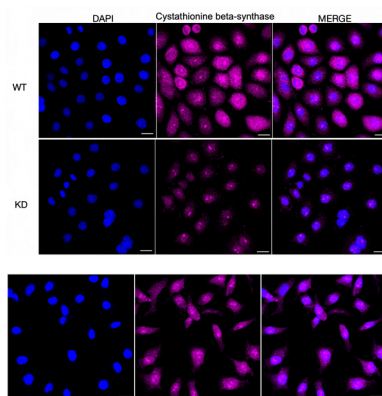
Western blotting analysis using Cystathionine beta-synthase antibody (KVA01541). Cystathionine beta-synthase expression in wild type (WT) and Cystathionine beta-synthase shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Cystathionine beta-synthase antibody (KVA01541, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using Cystathionine beta-synthase antibody (KVA01541). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Cystathionine beta-synthase antibody (KVA01541, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.

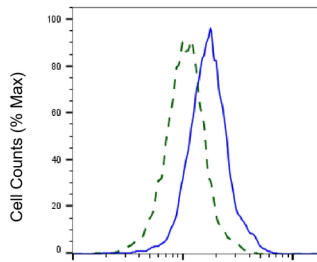


Immunohistochemistry was performed on paraffin-embedded human pancreatic adenocarcinoma using cystathionine beta-synthase antibody (KVA01541, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



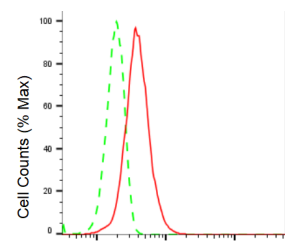
Immunocytochemical staining of HeLa cells using cystathionine beta-synthase antibody (KVA01541, 1:1,000), Top panel: wild-type (WT); Bottom panel: cystathionine beta-synthase shRNA knockdown (KD). Nuclei were stained blue with DAPI; Cystathionine beta-synthase was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.

Immunocytochemical staining of HeLa cells with Cystathionine beta-synthase antibody (KVA01541, 1:1,000). Nuclei were stained blue with DAPI; Cystathionine beta-synthase was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of Cystathionine beta-synthase knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Cystathionine beta-synthase antibody (KVA01541, 1:2,000) and analyzed using BD flow cytometer.

Cystathionine beta-synthase-Alexa Fluor® 647



Cystathionine beta-synthase-Alexa Fluor® 647

Flow cytometric analysis of Cystathionine beta-synthase expression in HeLa cells using Cystathionine beta-synthase antibody (KVA01541, 1:2,000). Green, isotype control; red, Cystathionine beta-synthase.