

Anti-CBS Antibody Picoband® (monoclonal, 5B5D7)

Catalog Number: M00130-3

About CBS

CBS, Cystathionine Beta-Synthase, catalyzes the first irreversible step of transsulfuration. The CBS enzyme is a homotetramer of 63-kD subunits and requires pyridoxal phosphate and heme for activity. The CBS gene, which is mapped to chromosome 21q22, contains 23 exons, ranging in size from 42 to 299 bp. The human CBS protein can substitute for the endogenous yeast CBS protein in *Saccharomyces cerevisiae*. The catalytic domain of the CBS protein is located in the N-terminal 409 amino acids, and a regulatory domain is located in the C-terminal 142 amino acids. A mutation that deletes the C-terminal 145 amino acids of CBS could restore activity of several CBS mutant alleles found in homocystinurics.

Overview

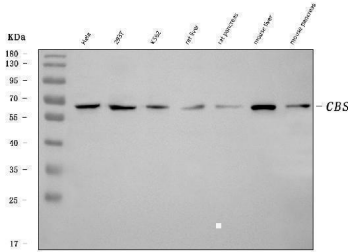
Product Name	Anti-CBS Antibody Picoband® (monoclonal, 5B5D7)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CBS Antibody Picoband® (monoclonal, 5B5D7) catalog # M00130-3. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, WB
Clonality	Monoclonal 5B5D7
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Mouse
Uniprot ID	P35520

Technical Details

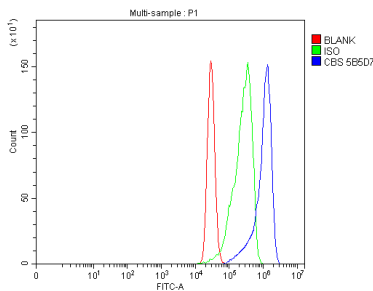
Immunogen	E.coli-derived human CBS recombinant protein (Position: K102-E342).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human

Anti-CBS Antibody Picoband® (monoclonal, 5B5D7) (M00130-3) Images



Western blot analysis of CBS using anti-CBS antibody (M00130-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: rat pancreas tissue lysates, Lane 6: mouse liver tissue lysates, Lane 7: mouse pancreas tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-CBS antigen affinity purified monoclonal antibody (Catalog # M00130-3) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for CBS at approximately 61 kDa. The expected band size for CBS is at 61 kDa.



Flow Cytometry analysis of MCF-7 cells using anti-CBS antibody (M00130-3). Overlay histogram showing MCF-7 cells stained with M00130-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CBS Antibody (M00130-3, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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PRODUCT INVESTIGATOR



Anti-CBS Antibody (monoclonal, 5B5D7)

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