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Polyclonal Anti-CBS Antibody

Catalog Number: PA1542

Description

Gene Name	cystathionine-beta-synthase
Recommended Protein Name	Cystathionine beta-synthase
Lot No.	0151112c0142121
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** human
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human CBS(322-342aa KWFKSNDEEAFTFARMLIAQE).
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Hu	-	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1μg/ml	Hu	-	By Heat

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.
Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

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.

Reference

1. Munke, M., Kraus, J., Watkins, P., Tanzi, R., Gusella, J., Millington Ward, A., Watson, M., Francke, U.Homocystinuria gene on human chromosome 21 mapped with cloned cystathionine beta-synthase probe and in situ hybridization of other chromosome 21 probes. (Abstract)Cytogenet. Cell Genet. 40: 706-707, 1985.
2. Kraus, J. P., Oliveriusova, J., Sokolova, J., Kraus, E., Vlcek, C., de Franchis, R., Maclean, K. N., Bao, L., Bukovska, G., Patterson, D., Paces, V., Ansorge, W., Kozich, V.The human cystathionine beta-synthase (CBS) gene: complete sequence, alternative splicing, and polymorphisms.Genomics 52: 312-324, 1998.
3. Kruger, W. D., Cox, D. R.A yeast system for expression of human cystathionine beta-synthase: structural and functional conservation of the human and yeast genes.Proc. Nat. Acad. Sci. 91: 6614-6618, 1994.