SANTA CRUZ BIOTECHNOLOGY, INC.

CTH (h): 293 Lysate: sc-112203

BACKGROUND

CTH (cystathionine γ-lyase), also known as CSE or γ-cystathionase, is a member of the *trans*-sulfuration enzyme family and participates in the *trans*-sulfuration pathway. CTH is a cytoplasmic enzyme produced in the cytosol and is responsible for catalyzing the pyridoxal phosphate-dependent β-disulfide elimination reaction resulting in ammonium, pyruvate and thiocysteine. The thiocysteine that is produced may then react with other thiols (or cysteine) and form hydrogen sulfide (H_2S). Thus, CTH is the major H_2S-producing enzyme in kidney, liver, vascular smooth muscle cells and enterocytes. The endogenous production of H_2S plays a significant role in the regulation of cellular functions, including cell growth, hyperpolarization of cell membranes, modulation of neuronal excitability and relaxation of smooth muscle cells. Mutations in the gene encoding CTH can result in the autosomal recessive disease cystathioninuria; a disorder characterized by the unusual accumulation of plasma cystathionine, causing increased urinary excretion.

REFERENCES

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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: CTH (human) mapping to 1p31.1.

PRODUCT

CTH (h): 293 Lysate represents a lysate of human CTH transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CTH (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive CTH antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.