



DCTD (h): 293 Lysate: sc-110875

BACKGROUND

DCTD (deoxycytidylate deaminase), also known as dCMP deaminase, is a 178 amino acid allosteric enzyme that exists as a homohexamer and belongs to the cytidine and deoxycytidylate deaminase protein family. Using zinc as a cofactor, DCTD catalyzes the deamination of dCMP to dUMP, thereby producing the nucleotide substrate (dUMP) that is used by thymidylate synthase (TS). TS uses 5,10-methyl-enetetrahydrofolate (methylene-THF) and dUMP in the synthesis of 2'-deoxythymidine-5'-monophosphate (dTMP), an essential precursor for DNA biosynthesis. Due to its role in the synthesis of dUMP, DCTD plays an important role in the creation of DNA. The activity of DCTD is regulated by the presence of dCTP and dTTP, two end products in the DCTD metabolic pathway. Multiple isoforms of DCTD are expressed due to alternative splicing events.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: DCTD (human) mapping to 4q35.1.

PRODUCT

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

APPLICATIONS

DCTD (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive DCTD 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-transfected 293 cells.

RESEARCH USE

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