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- Mindermengenzuschlag
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MPST (h): 293T Lysate: sc-129166

BACKGROUND

MPST (mercaptopyruvate sulfurtransferase), also known as MST or TST2, is a 297 amino acid protein that localizes to the cytoplasm and contains two Rhodanese domains. Existing as a monomer or as a disulfide-linked homodimer, MPST functions to catalyze the transfer of a sulfur ion to select thiol compounds, such as cyanide, and is thought to be involved in cyanide detoxification and cysteine degradation. MPST deficiency may be associated with the pathogenesis of the rare disorder mercaptolactate-cysteine disulfiduria (MCDU). The gene encoding MPST maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

REFERENCES

1. Pallini, R., Guazzi, G.C., Cannella, C. and Cacace, M.G. 1991. Cloning and sequence analysis of the human liver rhodanese: comparison with the bovine and chicken enzymes. *Biochem. Biophys. Res. Commun.* 180: 887-893.
2. Aita, N., Ishii, K., Akamatsu, Y., Ogasawara, Y. and Tanabe, S. 1997. Cloning and expression of human liver rhodanese cDNA. *Biochem. Biophys. Res. Commun.* 231: 56-60.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602496. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Billaut-Laden, I., Rat, E., Allorge, D., Crunelle-Thibaut, A., Cauffiez, C., Chevalier, D., Lo-Guidice, J.M. and Broly, F. 2006. Evidence for a functional genetic polymorphism of the human mercaptopyruvate sulfurtransferase (MPST), a cyanide detoxification enzyme. *Toxicol. Lett.* 165: 101-111.
5. Shibuya, N., Tanaka, M., Yoshida, M., Ogasawara, Y., Togawa, T., Ishii, K. and Kimura, H. 2008. 3-mercaptopyruvate sulfurtransferase produces hydrogen sulfide and bound sulfane sulfur in the brain. *Antioxid. Redox Signal.* 11: 703-714.
6. Nagahara, N. 2008. A novel mercaptopyruvate sulfurtransferase thioredoxin-dependent redox-sensing molecular switch: a mechanism for the maintenance of cellular redox equilibrium. *Mini. Rev. Med. Chem.* 8: 585-589.
7. Tanabe, S. 2008. Development of assay methods for endogenous inorganic sulfur compounds and sulfurtransferases and evaluation of the physiological functions of bound sulfur. *Yakugaku Zasshi* 128: 881-900.

CHROMOSOMAL LOCATION

Genetic locus: MPST (human) mapping to 22q12.3.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

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

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.