



MTH1 (h): 293T Lysate: sc-112873

BACKGROUND

MTH1, also known as NUDT1 (nudix (nucleoside diphosphate linked moiety X)-type motif 1), is a 179 amino acid cytoplasmic protein that is a member of the nudix hydrolase family. Highly expressed in testis, thymus and proliferating blood lymphocytes, MTH1 functions as an antimutagenic that hydrolyzes oxidized purine nucleoside triphosphates to their corresponding monophosphates. Through its ability to enzymatically hydrolyze ATP and GTP to AMP and GMP, respectively, MTH1 prevents misincorporation of GTP into DNA, thus preventing A:T to C:G transversions. The cytoplasmic location of MTH1, along with its antimutagenic capabilities, suggests that it may also be involved in the sanitization of nucleotide pools for both mitochondrial and nuclear genomes. Four isoforms of MTH1 exist—three of which are formed due to alternative splicing events and one of which is formed via a single-nucleotide polymorphism. Overexpression of MTH1 is implicated in prostate and cell lung carcinomas.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NUDT1 (human) mapping to 7p22.3.

RESEARCH USE

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

PRODUCT

MTH1 (h): 293T Lysate represents a lysate of human MTH1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MTH1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MTH1 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.