

ENOPH1 (h2): 293T Lysate: sc-117293

BACKGROUND

ENOPH1 (enolase-phosphatase 1), also known as E1, MASA or MST145, is a member of the MasA family of the HAD (halo-acid dehalogenase)-like hydrolase superfamily. Existing as a monomer and binding magnesium as a cofactor, ENOPH1 is a bifunctional enzyme, exhibiting both phosphatase and atypical enolase activities. ENOPH1 plays an important role in the ubiquitous methionine salvage pathway, a biochemical pathway found in all organisms that regulates methionine levels in the cell (also known as the Yang cycle in plants). More specifically, ENOPH1 catalyzes the continuous enolization and dephosphorylation of 2,3-diketo-5-methylthio-1-phosphopentane to yield the acireductone metabolite 1,2-dihydroxy-3-keto-5-methylthiopentene. Due to alternative splicing events, two isoforms exist for ENOPH1.

REFERENCES

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3. Wang, H., et al. 2005. Purification, crystallization and preliminary X-ray diffraction analysis of human enolase-phosphatase E1. *Acta Crystallogr. Sect. F Struct. Biol. Commun.* 61: 521-523.
4. Wang, H., et al. 2005. Crystal structure of human E1 enzyme and its complex with a substrate analog reveals the mechanism of its phosphatase/enolase activity. *J. Mol. Biol.* 348: 917-926.
5. Sauter, M., et al. 2005. The immediate-early ethylene response gene OsARD1 encodes an acireductone dioxygenase involved in recycling of the ethylene precursor S-adenosylmethionine. *Plant J.* 44: 718-729.
6. Rzewuski, G., et al. 2007. OsMTN encodes a 5'-methylthioadenosine nucleosidase that is up-regulated during submergence-induced ethylene synthesis in rice (*Oryza sativa* L.). *J. Exp. Bot.* 58: 1505-1514.
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CHROMOSOMAL LOCATION

Genetic locus: ENOPH1 (human) mapping to 4q21.22.

PRODUCT

ENOPH1 (h2): 293T Lysate represents a lysate of human ENOPH1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

ENOPH1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive ENOPH1 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.

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.