

ENOPH1 (H-10): sc-365155

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 acireduc-tone metabolite 1,2-dihydroxy-3-keto-5-methylthiopentene. Due to alternative splicing events, two isoforms exist for ENOPH1.

CHROMOSOMAL LOCATION

Genetic locus: ENOPH1 (human) mapping to 4q21.22; Enoph1 (mouse) mapping to 5 E4.

SOURCE

ENOPH1 (H-10) is a mouse monoclonal antibody raised against amino acids 1-261 representing full length ENOPH1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ENOPH1 (H-10) is available conjugated to agarose (sc-365155 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365155 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365155 PE), fluorescein (sc-365155 FITC), Alexa Fluor® 488 (sc-365155 AF488), Alexa Fluor® 546 (sc-365155 AF546), Alexa Fluor® 594 (sc-365155 AF594) or Alexa Fluor® 647 (sc-365155 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365155 AF680) or Alexa Fluor® 790 (sc-365155 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ENOPH1 (H-10) is recommended for detection of ENOPH1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ENOPH1 siRNA (h): sc-88932, ENOPH1 siRNA (m): sc-144654, ENOPH1 shRNA Plasmid (h): sc-88932-SH, ENOPH1 shRNA Plasmid (m): sc-144654-SH, ENOPH1 shRNA (h) Lentiviral Particles: sc-88932-V and ENOPH1 shRNA (m) Lentiviral Particles: sc-144654-V.

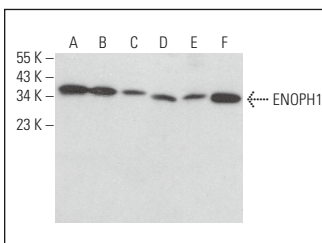
Molecular Weight of ENOPH1: 27 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HEL 92.1.7 cell lysate: sc-2270 or HEK293 whole cell lysate: sc-45136.

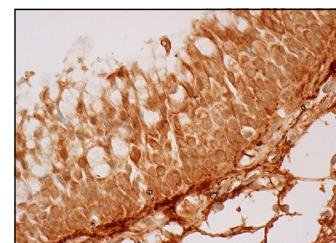
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ENOPH1 (H-10): sc-365155. Western blot analysis of ENOPH1 expression in HL-60 (A), HEL 92.1.7 (B), HEK293 (C), c4 (D), 3611-RF (E) and TK-1 (F) whole cell lysates.



ENOPH1 (H-10): sc-365155. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Su, L., et al. 2018. Enolase-phosphatase 1 as a novel potential malignant glioma indicator promotes cell proliferation and migration. *Oncol. Rep.* 40: 2233-2241.
2. Viedma-Rodríguez, R., et al. 2020. Epithelial mesenchymal transition and progression of breast cancer promoted by diabetes mellitus in mice are associated with increased expression of glycolytic and proteolytic enzymes. *Horm. Cancer* 11: 170-181.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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.