

Enolase (A-5): sc-271384

BACKGROUND

Enolases have been characterized as highly conserved cytoplasmic glycolytic enzymes that may be involved in differentiation. Three isoenzymes have been identified: α Enolase, β Enolase and γ Enolase. α Enolase expression has been detected on most tissues, whereas β Enolase is expressed predominantly in muscle tissue and γ Enolase is detected only in nervous tissue. These isoforms exist as both homodimers and heterodimers, and they play a role in converting phosphoglyceric acid to phosphoenolpyruvic acid in the glycolytic pathway. The 433 amino acid protein shows 67% homology to yeast Enolase and 94% homology to rat nonneural Enolase. Studies also indicate that α Enolase is encoded by the same gene that encodes τ -crystallin, a lens structural protein.

REFERENCES

- Whitehead, M.C., et al. 1982. Synapse formation is related to the onset of neuron-specific Enolase immunoreactivity in the avian auditory and vestibular systems. *Dev. Neurosci.* 5: 298-307.
- Giallongo, A., et al. 1986. Molecular cloning and nucleotide sequence of a full-length cDNA for human α Enolase. *Proc. Natl. Acad. Sci. USA* 83: 6741-6745.

SOURCE

Enolase (A-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of α Enolase of human origin.

PRODUCT

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

Enolase (A-5) is available conjugated to agarose (sc-271384 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271384 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271384 PE), fluorescein (sc-271384 FITC), Alexa Fluor® 488 (sc-271384 AF488), Alexa Fluor® 546 (sc-271384 AF546), Alexa Fluor® 594 (sc-271384 AF594) or Alexa Fluor® 647 (sc-271384 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271384 AF680) or Alexa Fluor® 790 (sc-271384 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Enolase (A-5) is recommended for detection of α Enolase, β Enolase and γ Enolase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

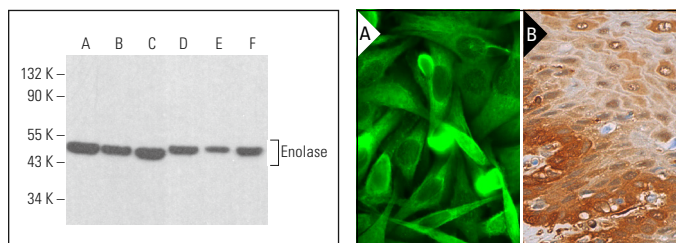
Molecular Weight of Enolase: 48 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, HeLa whole cell lysate: sc-2200 or KNRK whole cell lysate: sc-2214.

STORAGE

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

DATA



Enolase (A-5): sc-271384. Western blot analysis of Enolase expression in HeLa (A), IMR-32 (B), NIH/3T3 (C), KNRK (D) and SH-SY5Y (E) whole cell lysates and rat brain tissue extract (F).

Enolase (A-5) Alexa Fluor® 488: sc-271384 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (A). Enolase (A-5) HRP: sc-271384 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic and nuclear staining of squamous epithelial cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214 (B).

SELECT PRODUCT CITATIONS

- Herrera-Martínez, M., et al. 2013. Actin, RhoA, and Rab11 participation during encystment in *Entamoeba invadens*. *Biomed Res. Int.* 2013: 919345.
- Hertz, R., et al. 2014. The *Entamoeba histolytica* Dnmt2 homolog (Ehmet) confers resistance to nitrosative stress. *Eukaryot. Cell* 13: 494-503.
- Dutoit-Lefèvre, V., et al. 2015. An optimized fluorescence-based bidimensional immunoproteomic approach for accurate screening of autoantibodies. *PLoS ONE* 10: e0132142.
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- Tang, T., et al. 2020. Comparative proteomic and genomic analyses of *Brucella abortus* biofilm and planktonic cells. *Mol. Med. Rep.* 21: 731-743.
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RESEARCH USE

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