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 α-crystallin, a lens structural protein.

REFERENCES


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 µg IgG, 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 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271384 HRP), 200 µg/ml, for WB, IHC and ELISA; to either phycocerythrin (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 µg/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 µg/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 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).

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.

RESEARCH USE

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) 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