**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: \( \alpha \) Enolase, \( \beta \) Enolase and \( \gamma \) Enolase. \( \alpha \) Enolase expression has been detected on most tissues, whereas \( \beta \) Enolase is expressed predominantly in muscle tissue and \( \gamma \) Enolase is detected only in nervous tissue. These isofoms exist as both homodimers and heterodimers, and they play a role in converting phosphoglyceric acid to phosphonylpyruvic 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 \( \alpha \) Enolase is encoded by the same gene that encodes \( \tau \)-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 \( \alpha \) 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, HIC(P) 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 \( \alpha \) Enolase, \( \beta \) Enolase and \( \gamma \) 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.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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-IgG HRP: sc-516140 or m-IgG HRP: 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-IgG HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistochemical: sc-45086, or Organo/Limonene Mount: sc-45087.

**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).


**SELECT PRODUCT CITATIONS**


**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.