

# α Enolase (9): sc-101513

## 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.

## 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.
- Verma, M., et al. 1994. DNA sequences encoding Enolase are remarkably conserved from yeast to mammals. *Life Sci.* 55: 893-899.
- Keller, A., et al. 1994. Coexpression of α and γ Enolase genes in neurons of adult rat brain. *J. Neurosci. Res.* 38: 493-504.
- Zhang, E., et al. 1997. Mechanism of Enolase: the crystal structure of asymmetric dimer Enolase-2-phospho-D glycerate/Enolase-phosphoenolpyruvate at 2.0 Å resolution. *Biochemistry* 36: 12526-12534.
- Deloulme, J.C., et al. 1997. A comparative study of the distribution of α and γ Enolase subunits in cultured rat neural cells and fibroblasts. *Int. J. Dev. Neurosci.* 15: 183-194.
- Sensenbrenner, M., et al. 1997. Expression of two neuronal markers, growth-associated protein 43 and neuron-specific Enolase, in rat glial cells. *J. Mol. Med.* 75: 653-663.

## CHROMOSOMAL LOCATION

Genetic locus: ENO1 (human) mapping to 1p36.23; Eno1 (mouse) mapping to 4 E2.

## SOURCE

α Enolase (9) is a mouse monoclonal antibody raised against recombinant α Enolase of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

α Enolase (9) is available conjugated to agarose (sc-101513 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101513 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101513 PE), fluorescein (sc-101513 FITC), Alexa Fluor<sup>®</sup> 488 (sc-101513 AF488), Alexa Fluor<sup>®</sup> 546 (sc-101513 AF546), Alexa Fluor<sup>®</sup> 594 (sc-101513 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-101513 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-101513 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-101513 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

α Enolase (9) is recommended for detection of α Enolase 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for α Enolase siRNA (h): sc-35310, α Enolase siRNA (m): sc-35311, α Enolase shRNA Plasmid (h): sc-35310-SH, α Enolase shRNA Plasmid (m): sc-35311-SH, α Enolase shRNA (h) Lentiviral Particles: sc-35310-V and α Enolase shRNA (m) Lentiviral Particles: sc-35311-V.

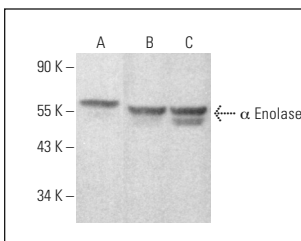
Molecular Weight of α Enolase: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A549 cell lysate: sc-2413 or MCF7 whole cell lysate: sc-2206.

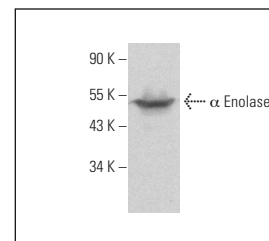
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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).

## DATA



α Enolase (9): sc-101513. Western blot analysis of α Enolase expression in HeLa (A), A549 (B) and MCF7 (C) whole cell lysates.



α Enolase (9): sc-101513. Western blot analysis of α Enolase expression in U-87 MG whole cell lysate.

## SELECT PRODUCT CITATIONS

- Li, X., et al. 2017. Quantitative proteomic profiling of tachyplesin I targets in U251 gliomaspheres. *Mar. Drugs* 15: 20.
- Razpotnik, R., et al. 2022. Circular RNA hsa\_circ\_0062682 binds to YBX1 and promotes oncogenesis in hepatocellular carcinoma. *Cancers* 14: 4524.

## 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.