SANTA CRUZ BIOTECHNOLOGY, INC.

γ Enolase (D-7): sc-376375

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 phosphenolpyruvic acid in the glycolytic pathway.

CHROMOSOMAL LOCATION

Genetic locus: ENO2 (human) mapping to 12p13.31; Eno2 (mouse) mapping to 6 F2.

SOURCE

γ Enolase (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 41-73 near the N-terminus of γ Enolase of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

γ Enolase (D-7) is available conjugated to agarose (sc-376375 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376375 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376375 PE), fluorescein (sc-376375 FITC), Alexa Fluor® 488 (sc-376375 AF488), Alexa Fluor® 546 (sc-376375 AF546), Alexa Fluor® 594 (sc-376375 AF594) or Alexa Fluor® 647 (sc-376375 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376375 AF680) or Alexa Fluor® 790 (sc-376375 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376375 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

γ Enolase (D-7) is recommended for detection of 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).

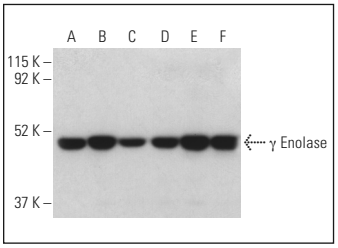
Suitable for use as control antibody for γ Enolase siRNA (h): sc-37045, γ Enolase siRNA (m): sc-37046, γ Enolase shRNA Plasmid (h): sc-37045-SH, γ Enolase shRNA Plasmid (m): sc-37046-SH, γ Enolase shRNA (h) Lentiviral Particles: sc-37045-V and γ Enolase shRNA (m) Lentiviral Particles: sc-37046-V.

Molecular Weight of γ Enolase: 50 kDa.

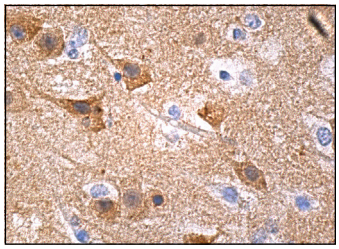
RECOMMENDED SUPPORT REAGENTS

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



γ Enolase (D-7) HRP: sc-376375 HRP. Direct western blot analysis of γ Enolase expression in Hep G2 (**A**), SH-SY5Y (**B**), C6 (**C**), RPE-J (**D**), Y79 (**E**) and BC_3H1 (**F**) whole cell lysates.



γ Enolase (D-7): sc-376375. Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing neuropil and cytoplasmic staining of neuronal cells.

SELECT PRODUCT CITATIONS

1. DeSouza, L.V., et al. 2013. Role of moesin in hyaluronan induced cell migration in glioblastoma multiforme. Mol. Cancer 12: 74.
2. Esfahanian, N., et al. 2022. Comprehensive analysis of proteasomal complexes in mouse brain regions detects ENO2 as a potential partner of the proteasome in the striatum. Cell. Mol. Neurobiol. 42: 2305-2319.
3. Majc, B., et al. 2022. Upregulation of cathepsin X in glioblastoma: interplay with γ-Enolase and the effects of selective cathepsin X inhibitors. Int. J. Mol. Sci. 23: 1784.

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.