SANTA CRUZ BIOTECHNOLOGY, INC.

γ Enolase (NSE-P2): sc-21737

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 (NSE-P2) is a mouse monoclonal antibody raised against amino acids 271-285 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 (NSE-P2) is available conjugated to agarose (sc-21737 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21737 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21737 PE), fluorescein (sc-21737 FITC), Alexa Fluor® 488 (sc-21737 AF488), Alexa Fluor® 546 (sc-21737 AF546), Alexa Fluor® 594 (sc-21737 AF594) or Alexa Fluor® 647 (sc-21737 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-21737 AF680) or Alexa Fluor® 790 (sc-21737 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

γ Enolase (NSE-P2) is recommended for detection of γ 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 immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

Positive Controls: γ Enolase (h): 293T Lysate: sc-170262, Y79 cell lysate: sc-2240 or IMR-32 cell lysate: sc-2409.

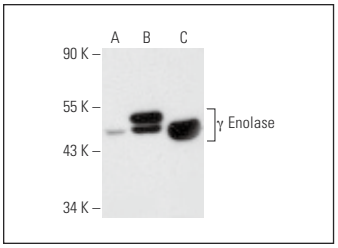
STORAGE

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

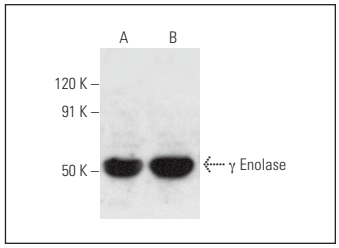
RESEARCH USE

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

DATA



γ Enolase (NSE-P2): sc-21737. Western blot analysis of γ Enolase expression in non-transfected 293T: sc-117752 (**A**), human γ Enolase transfected 293T: sc-170262 (**B**) and Y79 (**C**) whole cell lysates.



γ Enolase (NSE-P2): sc-21737. Western blot analysis of γ Enolase expression in IMR-32 (**A**) and SK-N-SH (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kish, S.J., et al. 2005. Regional distribution of serotonin transporter protein in postmortem human brain: is the cerebellum a SERT-free brain region? Nucl. Med. Biol. 32: 123-128.
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4. Philipova, T., et al. 2011. Differential forms of p53 in medulloblastoma primary tumors, cell lines and xenografts. Int. J. Oncol. 38: 843-849.
5. Rodriguez-Garcia, A., et al. 2012. Phenotypic changes caused by melatonin increased sensitivity of prostate cancer cells to cytokine-induced apoptosis. J. Pineal Res. 54: 33-45.
7. Pišlar, A.H. and Kos, J. 2013. C-terminal peptide of γ Enolase impairs Amyloid-β-induced apoptosis through $p75^{NTR}$ signaling. Neuromolecular Med. 15: 623-635.
8. Matthews, B.A., et al. 2018. Elevated monoamine oxidase A activity and protein levels in rodent brain during acute withdrawal after chronic intermittent ethanol vapor exposure. Drug Alcohol Depend. 185: 398-405.
8. Tong, J., et al. 2020. Serotonin transporter protein in autopsied brain of chronic users of cocaine. Psychopharmacology 237: 2661-2671.
9. 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.