γ Enolase (SPM347): sc-56384



The Power to Overtin

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.

REFERENCES

- Whitehead, M.C., Marangos, P.L., Connolly, S.M. and Morest, D.K. 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. and Dutta, S.K. 1994. DNA sequences encoding Enolase are remarkably conserved from yeast to mammals. Life Sci. 55: 893-899.
- 3. Keller, A., Berod, A., Dussaillant, M., Lamande, N., Gros, F. and Lucas, M. 1994. Coexpression of α and γ Enolase genes in neurons of adult rat brain. J. Neurosci. Res. 38: 493-504.
- 4. Deloulme, J.C., Helies, A., Ledig, M., Lucas, M. and Sensenbrenner, M. 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., Lucas, M. and Deloume, J.C. 1997. Expression of two neuronal markers, growth-associated protein 43 and neuron-specific Enolase, in rat glial cells. J. Mol. Med. 75: 653-663.
- Zhang, E., Brewer, J.M., Minor, W., Carreira, L.A. and Lebioda, L. 1997 Mechanism of Enolase: the crystal structure of asymmetric dimer Enolase-2-phospho-D-glycerate/Enolase-phosphenolpyruvate at 2.0 A resolution. Biochemistry 36: 12526-12534.

CHROMOSOMAL LOCATION

Genetic locus: ENO2 (human) mapping to 12p13.31.

SOURCE

 γ Enolase (SPM347) is a mouse monoclonal antibody raised against purified neuron-specific Enolase of human origin.

PRODUCT

Each vial contains 200 $\mu g \ lg G_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

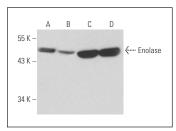
 γ Enolase (SPM347) is recommended for detection of γ Enolase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-37045-SH and γ Enolase shRNA (h) Lentiviral Particles: sc-37045-V.

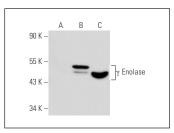
Molecular Weight of γ Enolase: 50 kDa.

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

DATA







γ Enolase (SPM347): sc-56384. 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.

RESEARCH USE

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



See **Enolase (A-5): sc-271384** for Enolase antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com