SANTA CRUZ BIOTECHNOLOGY, INC.

α Enolase (h): 293 Lysate: sc-112734

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. The 433 amino acid protein shows 67% homology to yeast enolase and 94% homology to rat non-neural enolase. Studies also indicate that α Enolase is encoded by the same gene that encodes τ-crystallin, a lens structural protein.

REFERENCES

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4. Verma, M. and Dutta, S.K. 1994. DNA sequences encoding Enolase are remarkably conserved from yeast to mammals. Life Sci. 55: 893-899.
5. Keller, A., Bérod, A., Dussaillant, M., Lamandé, 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.
6. 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.
7. 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.
8. Sensenbrenner, M., Lucas, M. and Deloulme, 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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ENO1 (human) mapping to 1p36.23.

PRODUCT

α Enolase (h): 293 Lysate represents a lysate of human α Enolase transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

α Enolase (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive α Enolase antibodies. Recommended use: 10-20 µl per lane.

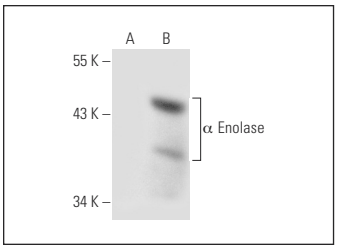
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

Enolase (B-8): sc-271792 is recommended as a positive control antibody for Western Blot analysis of enhanced human Enolase expression in Enolase transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Enolase (B-8): sc-271792. Western blot analysis of α Enolase expression in non-transfected: sc-110760 (**A**) and human α Enolase transfected: sc-112734 (**B**) 293 whole cell lysates.

RESEARCH USE

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