## SANTA CRUZ BIOTECHNOLOGY, INC.

# $\alpha$ Enolase (L-27): sc-100812



#### BACKGROUND

Enolases have been characterized as highly conserved cytoplasmic glycolytic enzymes that may be involved in differentiation. Three isoenzymes have been identified:  $\alpha$  Enolase,  $\beta$  Enolase and  $\gamma$  Enolase.  $\alpha$  Enolase expression has been detected on most tissues, whereas  $\beta$  Enolase is expressed predominantly in muscle tissue and  $\gamma$  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

- 1. 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.

#### **CHROMOSOMAL LOCATION**

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

#### SOURCE

 $\alpha$  Enolase (L-27) is a mouse monoclonal antibody raised against recombinant  $\alpha$  Enolase of human origin.

#### PRODUCT

Each vial contains 100  $\mu g$   $lgG_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **APPLICATIONS**

 $\alpha$  Enolase (L-27) is recommended for detection of  $\alpha$  Enolase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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  $\alpha$  Enolase siRNA (h): sc-35310,  $\alpha$  Enolase siRNA (m): sc-35311, a Enolase shRNA Plasmid (h): sc-35310-SH,  $\alpha$  Enolase shRNA Plasmid (m): sc-35311-SH,  $\alpha$  Enolase shRNA (h) Lentiviral Particles: sc-35310-V and  $\alpha$  Enolase shRNA (m) Lentiviral Particles: sc-35311-V.

Molecular Weight of  $\alpha$  Enolase: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or HCT-116 whole cell lysate: sc-364175.

### **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







 $\alpha$  Enolase (L-27): sc-100812. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymphoma tissue showing membrane and cytoplasmic localization (B).

#### **SELECT PRODUCT CITATIONS**

- Kulkarni, Y.M., et al. 2010. Inferring predominant pathways in cellular models of breast cancer using limited sample proteomic profiling. BMC Cancer 10: 291.
- Hamelin, C., et al. 2011. Identification and verification of heat shock protein 60 as a potential serum marker for colorectal cancer. FEBS J. 278: 4845-4859.
- Bongiovanni, A., et al. 2012. Alix protein is substrate of Ozz-E3 ligase and modulates Actin remodeling in skeletal muscle. J. Biol. Chem. 287: 12159-12171.
- Yu, L., et al. 2012. Estrogen promotes prostate cancer cell migration via paracrine release of EN01 from stromal cells. Mol. Endocrinol. 26: 1521-1530.
- Jung, E.J., et al. 2013. Proteomic analysis of novel targets associated with TrkA-mediated tyrosine phosphorylation signaling pathways in SK-N-MC neuroblastoma cells. Proteomics 13: 355-367.
- Gowda, R., et al. 2013. Simultaneous targeting of COX-2 and AKT using selenocoxib-1-GSH to inhibit melanoma. Mol. Cancer Ther. 12: 3-15.
- Sutinen, E.M., et al. 2014. Interleukin-18 alters protein expressions of neurodegenerative diseases-linked proteins in human SH-SY5Y neuron-like cells. Front. Cell. Neurosci. 8: 214.
- Jung, E.J., et al. 2014. Proteomic analysis of SP600125-controlled TrkAdependent targets in SK-N-MC neuroblastoma cells: inhibition of TrkA activity by SP600125. Proteomics 14: 202-215.



See **Enolase (A-5): sc-271384** for Enolase antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.