SANTA CRUZ BIOTECHNOLOGY, INC.

α Enolase (L-27): sc-100812

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.

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.
2. 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

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

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

α Enolase (L-27) is recommended for detection of α 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)], 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 α Enolase siRNA (h): sc-35310, α Enolase siRNA (m): sc-35311, α Enolase shRNA Plasmid (h): sc-35310-SH, α Enolase shRNA Plasmid (m): sc-35311-SH, α Enolase shRNA (h) Lentiviral Particles: sc-35310-V and α Enolase shRNA (m) Lentiviral Particles: sc-35311-V.

Molecular Weight of α Enolase: 47 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or A549 cell lysate: sc-2413.

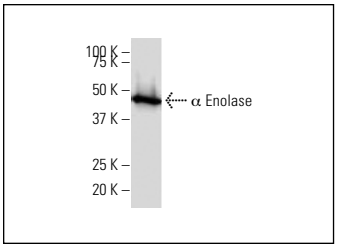
STORAGE

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

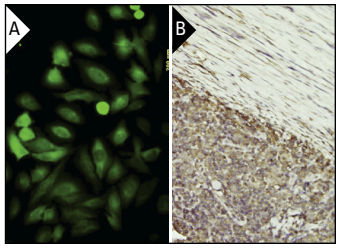
RESEARCH USE

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

DATA



α Enolase (L-27): sc-100812. Western blot analysis of α Enolase expression in MCF7 whole cell lysate.



α 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

1. Kulkarni, Y.M., et al. 2010. Inferring predominant pathways in cellular models of breast cancer using limited sample proteomic profiling. BMC Cancer 10: 291.
2. 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.
3. 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.
4. Leal, M.F., et al. 2012. Differential proteomic analysis of noncardia gastric cancer from individuals of northern Brazil. PLoS ONE 7: e42255.
5. Yu, L., et al. 2012. Estrogen promotes prostate cancer cell migration via paracrine release of ENO1 from stromal cells. Mol. Endocrinol. 26: 1521-1530.
6. 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.
7. 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.
8. 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.
9. Jung, E.J., et al. 2014. Proteomic analysis of SP600125-controlled TrkA-dependent targets in SK-N-MC neuroblastoma cells: inhibition of TrkA activity by SP600125. Proteomics 14: 202-215.

CONJUGATES

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