SANTA CRUZ BIOTECHNOLOGY, INC.

Enolase (H-300): sc-15343

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. and Dutta, S.K. 1994. DNA sequences encoding Enolase are remarkably conserved from yeast to mammals. Life Sci. 55: 893-899.

SOURCE

Enolase (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of α Enolase of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Enolase (H-300) is recommended for detection of α Enolase, β Enolase and 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)], 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).

Enolase (H-300) is also recommended for detection of α enolase, β enolase and γ enolase in additional species, including equine, bovine and avian.

Molecular Weight of Enolase: 48 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, Hep G2 cell lysate: sc-2227 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.

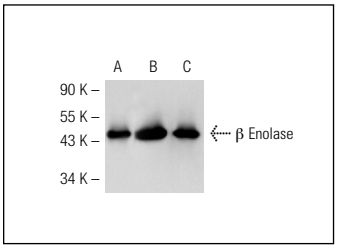
PROTOCOLS

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

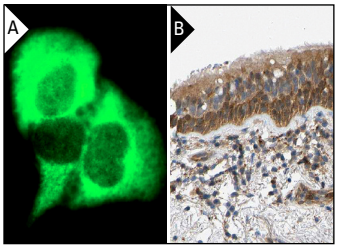
RESEARCH USE

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

DATA



Enolase (H-300): sc-15343. Western blot analysis of β Enolase expression in non-transfected 293T: sc-117752 (**A**), mouse β Enolase transfected 293T: sc-125299 (**B**) and Hep G2 (**C**) whole cell lysates.



Enolase (H-300): sc-15343. Immunofluorescence staining of methanol-fixed A549 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Morelli, L., et al. 2004. Insulin-degrading enzyme in brain microvessels: proteolysis of amyloid β vasculotropic variants and reduced activity in cerebral amyloid angiopathy. J. Biol. Chem. 53: 56004-56013.
2. Cesarman-Maus, G., et al. 2006. Autoantibodies against the fibrinolytic receptor, annexin 2, in antiphospholipid syndrome. Blood 107: 4375-4382.
3. Ito, S., et al. 2007. Differential expression of the human α enolase gene in oral epithelium and squamous cell carcinoma. Cancer Sci. 98: 499-505.
4. Kinloch, A., et al. 2008. Synovial fluid is a site of citrullination of autoantigens in inflammatory arthritis. Arthritis Rheum. 58: 2287-2295.
5. Yamane, Y., et al. 2009. New horny layer marker proteins for evaluating skin condition in atopic dermatitis. Int. Arch. Allergy Immunol. 150: 89-101.
6. Jansen, F.H., et al. 2009. Exosomal secretion of cytoplasmic prostate cancer xenograft-derived proteins. Mol. Cell. Proteomics 8: 1192-1205.
7. Sedoris, K.C., et al. 2010. Hypoxia induces differential translation of enolase/MBP-1. BMC Cancer 10: 157.
8. Merkulova, M., et al. 2011. Aldolase directly interacts with ARNO and modulates cell morphology and acidic vesicle distribution. Am. J. Physiol. Cell Physiol. 300: C1442-C1455.