SANTA CRUZ BIOTECHNOLOGY, INC.

SPZ1 (Q-15): sc-107300

BACKGROUND

SPZ1 (spermatogenic leucine zipper 1), also known as NYD-TSP1, is a 430 amino acid testis specific protein that localizes to the nucleus and cytoplasm. Containing one basic helix-loop-helix (bHLH) domain, SPZ1 is phosphorylated by ERK 1 and ERK 2. SPZ1 is suggested to mediate mitogen-activated protein kinase cell proliferation, transformation and tumorigenesis. SPZ1 is a transcription factor that binds to the DNA sequence 5'-CANNTG-3'(E box) and the G-box motif and may play an important role in the regulation of cell proliferation and differentiation during spermatogenesis. Expressed at high levels in several tumor cell lines, SPZ1 acts as a proto-oncogene, participating in the MAPK signal pathway, and may be a potential therapeutic target in the treatment of Ras-induced tumors.

REFERENCES

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3. Hsu, S.H., Hsieh-Li, H.M. and Li, H. 2004. Dysfunctional spermatogenesis in transgenic mice overexpressing bHLH-Zip transcription factor, Spz1. Exp. Cell Res. 294: 185-198.
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5. Hsu, S.H., Hsieh-Li, H.M., Huang, H.Y., Huang, P.H. and Li, H. 2005. bHLH-zip transcription factor Spz1 mediates mitogen-activated protein kinase cell proliferation, transformation, and tumorigenesis. Cancer Res. 65: 4041-4050.
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CHROMOSOMAL LOCATION

Genetic locus: Spz1 (mouse) mapping to 13 C3.

SOURCE

SPZ1 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPZ1 of mouse origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-107300 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-107300 X, 200 µg/0.1 ml.

APPLICATIONS

SPZ1 (Q-15) is recommended for detection of SPZ1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (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 SPZ1 siRNA (m): sc-153811, SPZ1 shRNA Plasmid (m): sc-153811-SH and SPZ1 shRNA (m) Lentiviral Particles: sc-153811-V.

SPZ1 (Q-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SPZ1: 44 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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