SANTA CRUZ BIOTECHNOLOGY, INC.

ISY1 (N-12): sc-99474

BACKGROUND

Spliceosomes are multi-protein complexes that are composed of snRNPs (small nuclear ribonucleoproteins) and a variety of associated protein factors, all of which work in concert to regulate the splicing of pre-mRNA, a critical step in the posttranscriptional regulation of gene expression. ISY1, a 331 amino acid protein, is a nonessential member of the spliceosome C complex. The gene encoding ISY1 exists as three isoforms as a result of alternative splicing events and maps to chromosome 3, which comprises over 1,100 genes that include a chemokine receptor gene cluster as well as a variety of human cancer related loci.

REFERENCES

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3. Dahan, O., et al. 2002. Mutations in genes of *Saccharomyces cerevisiae* encoding pre-mRNA splicing factors cause cell cycle arrest through activation of the spindle checkpoint. Nucleic Acids Res. 30: 4361-4370.
4. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
5. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. Genomics 83: 193-202.
6. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. Genomics 85: 36-47.
7. Darai, E., et al. 2005. Evolutionarily plastic regions at human 3p21.3 coincide with tumor breakpoints identified by the "elimination test". Genomics 86: 1-12.
8. Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. Cytogenet. Genome Res. 108: 98-105.
9. Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. Nature 440: 1194-1198.

CHROMOSOMAL LOCATION

Genetic locus: ISY1 (human) mapping to 3q21.3; Isy1 (mouse) mapping to 6 D1.

SOURCE

ISY1 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ISY1 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.

Blocking peptide available for competition studies, sc-99474 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ISY1 (N-12) is recommended for detection of ISY1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ISY1 siRNA (h): sc-77922, ISY1 siRNA (m): sc-146304, ISY1 shRNA Plasmid (h): sc-77922-SH, ISY1 shRNA Plasmid (m): sc-146304-SH, ISY1 shRNA (h) Lentiviral Particles: sc-77922-V and ISY1 shRNA (m) Lentiviral Particles: sc-146304-V.

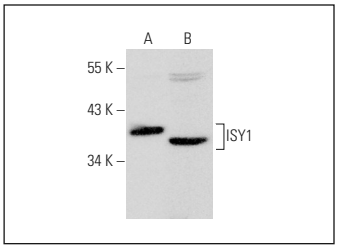
Molecular Weight of ISY1: 38/35/33 kDa.

Positive Controls: RT-4 whole cell lysate: sc-364257 or human liver extract: sc-363766.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ISY1 (N-12): sc-99474. Western blot analysis of ISY1 expression in RT-4 whole cell lysate (**A**) and human liver tissue extract (**B**).

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.

PROTOCOLS

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