SANTA CRUZ BIOTECHNOLOGY, INC.

ICT1 (T-14): sc-164630

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Stem cell differentiation in the adult colon leads to three distinct cell types that make up the tissue of the lower intestine. Neoplastic transformation can deviate a stem cell, or its early descendants, along the maturation pathway that leads to these three cell types. This neoplastic-induced deviation is marked by a change in expression of several mRNAs. ICT1, also known as DS-1, is a member of the prokaryotic/mitochondrial release factor family whose expression is downregulated over four fold upon colon stem cell differentiation. This downregulation of ICT1 could lead to its use as a marker for detection of colon carcinomas.

REFERENCES

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2. van Belzen, N., et al. 1998. Expression of differentiation-related genes in colorectal cancer: possible implications for prognosis. Histol. Histopathol. 13: 1233-1242.
3. Miura, S., et al. 2000. Screening of genes involved in isooctane tolerance in *Saccharomyces cerevisiae* by using mRNA differential display. Appl. Environ. Microbiol. 66: 4883-4889.
4. Craig, M.H., et al. 2002. Field and laboratory comparative evaluation of ten rapid malaria diagnostic tests. Trans. R. Soc. Trop. Med. Hyg. 96: 258-265.
5. Matsui, K., et al. 2006. Screening for candidate genes involved in tolerance to organic solvents in yeast. Appl. Microbiol. Biotechnol. 71: 75-79.
6. Ghosh, A.K., et al. 2008. YLR099C (ICT1) encodes for a soluble acyl-CoA dependent lysophosphatidic acid acyltransferase responsible for enhanced phospholipid synthesis on organic solvent stress in *Saccharomyces cerevisiae*. J. Biol. Chem. 283: 9768-9775.

CHROMOSOMAL LOCATION

Genetic locus: ICT1 (human) mapping to 17q25.1; Ict1 (mouse) mapping to 11 E2.

SOURCE

ICT1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ICT1 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-164630 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ICT1 (T-14) is recommended for detection of ICT1 of mouse, rat and human 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 ICT1 siRNA (h): sc-94120, ICT1 siRNA (m): sc-146138, ICT1 shRNA Plasmid (h): sc-94120-SH, ICT1 shRNA Plasmid (m): sc-146138-SH, ICT1 shRNA (h) Lentiviral Particles: sc-94120-V and ICT1 shRNA (m) Lentiviral Particles: sc-146138-V.

Molecular Weight of ICT1: 24 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.