

# ICAT (FL-81): sc-99240

## BACKGROUND

ICAT interacts directly with  $\beta$ -catenin and interferes with the Wnt signaling pathway. Specifically, ICAT prevents the interaction of  $\beta$ -catenin with TCF-4 and inhibits  $\beta$ -catenin—TCF-4-mediated transactivation. The negative regulatory effect of ICAT on the Wnt signaling pathway appears to inhibit tumor cell proliferation. ICAT also induces G<sub>2</sub> arrest followed by cell death in colorectal tumor cells. The ectopic induction of ICAT inhibits the expression of  $\beta$ 3 Tubulin and thus neuronal differentiation in embryonal carcinoma P19 cells. Structural characteristics of ICAT include a three-helix bundle and a C-terminal tail. The gene encoding human ICAT maps to chromosome 1p36.22.

## REFERENCES

1. Tago, K., Nakamura, T., Nishita, M., Hyodo, J., Nagai, S., Murata, Y., Adachi, S., Ohwada, S., Morishita, Y., Shibuya, H. and Akiyama, T. 2000. Inhibition of Wnt signaling by ICAT, a novel  $\beta$ -catenin-interacting protein. *Genes Dev.* 14: 1741-1749.
2. Sekiya, T., Nakamura, T., Kazuki, Y., Oshimura, M., Kohu, K., Tago, K., Ohwada, S. and Akiyama, T. 2002. Overexpression of ICAT induces G<sub>2</sub> arrest and cell death in tumor cell mutants for adenomatous polyposis coli,  $\beta$ -catenin, or Axin. *Cancer Res.* 62: 3322-3326.

## CHROMOSOMAL LOCATION

Genetic locus: CTNNBIP1 (human) mapping to 1p36.22; Ctnnbip1 (mouse) mapping to 4 E2.

## SOURCE

ICAT (FL-81) is a rabbit polyclonal antibody raised against amino acids 1-81 representing full length ICAT of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ICAT (FL-81) is recommended for detection of ICAT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

ICAT (FL-81) is also recommended for detection of ICAT in additional species, including equine, bovine and avian.

Suitable for use as control antibody for ICAT siRNA (h): sc-43858, ICAT siRNA (m): sc-45273, ICAT shRNA Plasmid (h): sc-43858-SH, ICAT shRNA Plasmid (m): sc-45273-SH, ICAT shRNA (h) Lentiviral Particles: sc-43858-V and ICAT shRNA (m) Lentiviral Particles: sc-45273-V.

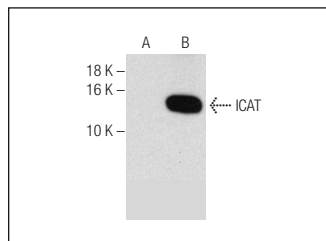
Molecular Weight of ICAT: 9 kDa.

Positive Controls: ICAT (h): 293T Lysate: sc-370062.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ICAT (FL-81): sc-99240. Western blot analysis of ICAT expression in non-transfected: sc-117752 (A) and human ICAT transfected: sc-370062 (B) 293T whole cell lysates.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **ICAT (5C6): sc-293489**, our highly recommended monoclonal alternative to ICAT (FL-81).