SANTA CRUZ BIOTECHNOLOGY, INC.

ICMT (C-21): sc-130150

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ICMT (isoprenylcysteine carboxylmethyltransferase), also known as PCCMT, HSTE14 or PPMT, is a 284 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and belongs to the isoprenylcysteine O-methyltransferase family. Expressed ubiquitously, with highest expression in brain tissue, ICMT uses divalent cations (such as zinc) to catalyze the post-translational methylation of isoprenylated C-terminal cysteine residues. Specifically, ICMT functions as the third of three enzymes that modify isoprenylated C-terminal cysteine residues on target proteins, thereby targeting those proteins to the cell membrane. Inhibition of ICMT effects Ras function and causes endothelial apoptosis, an event that may lead to a decrease in oncogenic transformation. Multiple isoforms of ICMT exist due to alternative splicing.

REFERENCES

1. Dai, Q., et al. 1998. Mammalian prenylcysteine carboxyl methyltransferase is in the endoplasmic reticulum. J. Biol. Chem. 273: 15030-15034.
2. Desrosiers, R.R., et al. 1999. The carboxyl methyltransferase modifying G proteins is a metalloenzyme. Biochem. Biophys. Res. Commun. 261: 790-797.
3. Choy, E., et al. 1999. Endomembrane trafficking of ras: the CAAX motif targets proteins to the ER and Golgi. Cell 98: 69-80.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605851. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: ICMT (human) mapping to 1p36.31.

SOURCE

ICMT (C-21) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ICMT of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

ICMT (C-21) is recommended for detection of ICMT of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ICMT siRNA (h): sc-88830, ICMT shRNA Plasmid (h): sc-88830-SH and ICMT shRNA (h) Lentiviral Particles: sc-88830-V.

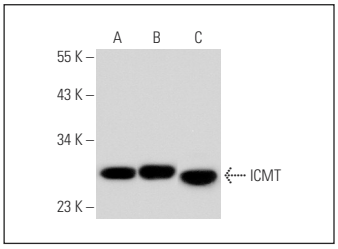
Molecular Weight of ICMT: 32 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

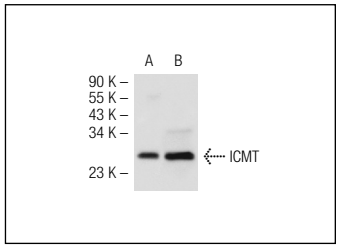
RECOMMENDED SECONDARY REAGENTS

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).

DATA



ICMT (C-21): sc-130150. Western blot analysis of ICMT expression in K-562 (**A**), Hep G2 (**B**) and SH-SY5Y (**C**) whole cell lysates.



ICMT (C-21): sc-130150. Western blot analysis of ICMT expression in 293T (**A**) and HeLa (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Jayaram, B., et al. 2011. Isoprenylcysteine carboxyl methyltransferase facilitates glucose-induced Rac1 activation, ROS generation and Insulin secretion in INS 832/13 β-cells. Islets 3: 48-57.