SANTA CRUZ BIOTECHNOLOGY, INC.

CRABP-I (S-14): sc-10061

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The cellular retinoic acid-binding protein (CRABP)-I and a related isoform, CRABP-II, bind retinoic acid (RA), an important regulator of cell growth and differentiation in fetal and adult tissues. These CRABP proteins mediate the downstream effects of RA in distinct ways. CRABP-I negatively regulates the activity of RA by enhancing the production of RA-metabolizing enzymes and increasing the rate at which RA is degraded. CRABP-II enhances the effects of RA by directly interacting with RA receptors (RAR) and, in turn, promoting the formation of RAR-RA complexes and stimulating RA-mediated gene transcription. Both CRABP-I and CRABP-II are expressed in the embryo, and CRABP-I is ubiquitously expressed in various adult tissues. The expression of CRABP-II is elevated in cells that synthesize relatively large amounts of RA, and it is also predominantly expressed in skin, uterus, ovary and in the choroid plexus.

CHROMOSOMAL LOCATION

Genetic locus: CRABP1 (human) mapping to 15q25.1; Crabp1 (mouse) mapping to 9 A5.3.

SOURCE

CRABP-I (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CRABP-I 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-10061 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRABP-I (S-14) is recommended for detection of CRABP-I 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).

CRABP-I (S-14) is also recommended for detection of CRABP-I in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CRABP-I siRNA (h): sc-35103, CRABP-I siRNA (m): sc-35104, CRABP-I shRNA Plasmid (h): sc-35103-SH, CRABP-I shRNA Plasmid (m): sc-35104-SH, CRABP-I shRNA (h) Lentiviral Particles: sc-35103-V and CRABP-I shRNA (m) Lentiviral Particles: sc-35104-V.

Molecular Weight of CRABP-I: 15 kDa.

Positive Controls: CRABP-I (h2): 293T Lysate: sc-159486, NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-2201.

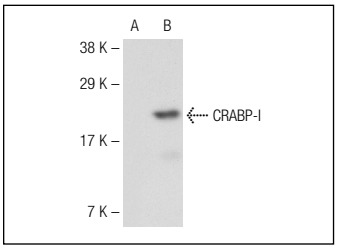
RESEARCH USE

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

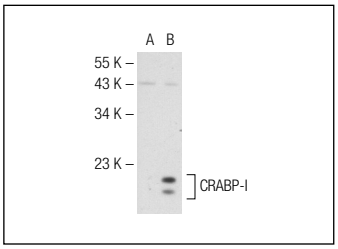
STORAGE

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

DATA



CRABP-I (S-14): sc-10061. Western blot analysis of CRABP-I expression in non-transfected: sc-117752 (**A**) and human CRABP-I transfected: sc-159411 (**B**) 293T whole cell lysates.



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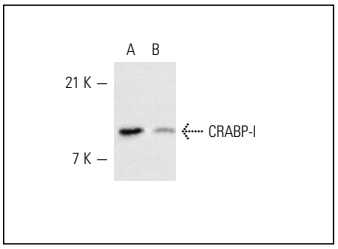
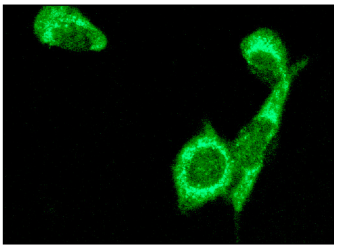


CRABP-I (S-14): sc-10061. Western blot analysis of CRABP-I expression in NIH/3T3 (**A**) and A-431 (**B**) nuclear extracts.



CRABP-I (S-14): sc-10061. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Janes, S.M., et al. 2004. Transient activation of FOXN1 in keratinocytes induces a transcriptional programme that promotes terminal differentiation: contrasting roles of FOXN1 and Akt. J. Cell Sci. 117: 4157-4168.
2. Armstrong, J.L., et al. 2005. Increasing the intracellular availability of all-trans retinoic acid in neuroblastoma cells. Br. J. Cancer 92: 696-704.
3. Torres, S., et al. 2013. Proteome profiling of cancer-associated fibroblasts identifies novel proinflammatory signatures and prognostic markers for colorectal cancer. Clin. Cancer Res. 19: 6006-6019.

PROTOCOLS

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