

CRABP-II (K-13): sc-10065

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: CRABP2 (human) mapping to 1q23.1; Crabp2 (mouse) mapping to 3 F1.

SOURCE

CRABP-II (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CRABP-II of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10065 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRABP-II (K-13) is recommended for detection of CRABP-II 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), immunohistochemistry (including paraffin-embedded sections) (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-II (K-13) is also recommended for detection of CRABP-II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CRABP-II siRNA (h): sc-35105, CRABP-II siRNA (m): sc-35106, CRABP-II shRNA Plasmid (h): sc-35105-SH, CRABP-II shRNA Plasmid (m): sc-35106-SH, CRABP-II shRNA (h) Lentiviral Particles: sc-35105-V and CRABP-II shRNA (m) Lentiviral Particles: sc-35106-V.

Molecular Weight of CRABP-II: 15 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or A-431 nuclear extract: sc-2122.

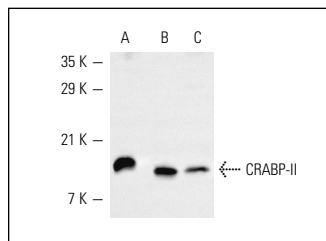
RESEARCH USE

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

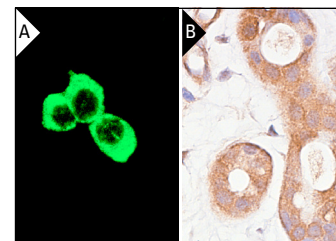
STORAGE

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

DATA



CRABP-II (K-13): sc-10065. Western blot analysis of CRABP-II expression in NIH/3T3 (A), A-431 (B) and HeLa (C) nuclear extracts.



CRABP-II (K-13): sc-10065. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tissue showing cytoplasmic staining (B).

SELECT PRODUCT CITATIONS

- 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.
- Armstrong, J.L., et al. 2005. Increasing the intracellular availability of all-*trans* retinoic acid in neuroblastoma cells. *Br. J. Cancer* 92: 696-704.
- Gupta, A., et al. 2006. Cellular retinoic acid-binding protein II is a direct transcriptional target of MycN in neuroblastoma. *Cancer Res.* 66: 8100-8108.
- Peluso, C.E., et al. 2012. Differential expression of components of the retinoic acid signaling pathway in the adult mouse olfactory epithelium. *J. Comp. Neurol.* 520: 3707-3726.
- Gupta, S., et al. 2012. Molecular determinants of retinoic acid sensitivity in pancreatic cancer. *Clin. Cancer Res.* 18: 280-289.
- Kolarcik, C.L., et al. 2012. Retinoid signaling alterations in amyotrophic lateral sclerosis. *Am. J. Neurodegener. Dis.* 1: 130-145.

PROTOCOLS

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