

# CRBP II (h): 293T Lysate: sc-371576

## BACKGROUND

The cellular retinol-binding proteins (CRBP I, II, III and IV) belong to a superfamily of small cytoplasmic proteins that interact with hydrophobic ligands. Vitamin A, a molecule essential for cell growth and differentiation, embryonic development and vision, is transported into the cell by the CRBPs in its alcoholic form, called retinol. Both CRBP I and II are composed of ten antiparallel  $\beta$ -strands, which form a  $\beta$ -barrel that contains the retinol molecule, and two  $\alpha$ -helices, which cover the open ends of the barrel. CRBP II, which is also known as RBP2 (retinol-binding protein 2), consists of 134 amino acids and is expressed solely in the small intestine where it mediates the absorption of retinoids and carotenoids to biosynthesize retinyl esters.

## REFERENCES

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3. Winter, N.S., et al. 1993. Crystal structures of holo- and apo-cellular retinol-binding protein II. *J. Mol. Biol.* 230: 1247-1259.
4. Okuno, M., et al. 1993. Cellular retinoid-binding proteins. *Nippon Rinsho* 51: 879-885.
5. Takase, S., et al. 2000. Regulation of vitamin A metabolism-related gene expression. *Br. J. Nutr.* 84: S217-S221.
6. Xu, G., et al. 2001. Regulation of  $\alpha$ -smooth muscle Actin and CRBP-1 expression by retinoic acid and TGF $\beta$  in cultured fibroblasts. *J. Cell. Physiol.* 187: 315-325.
7. Folli, C., et al. 2001. Identification, retinoid binding and x-ray analysis of a human retinol-binding protein. *Proc. Natl. Acad. Sci. USA* 98: 3710-3715.

## CHROMOSOMAL LOCATION

Genetic locus: RBP2 (human) mapping to 3q23.

## PRODUCT

CRBP II (h): 293T Lysate represents a lysate of human CRBP II transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

CRBP II (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CRBP II antibodies. Recommended use: 10-20  $\mu$ l per lane.

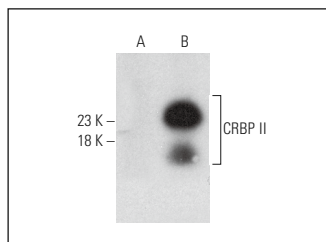
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CRBP II (8-1#): sc-517437 is recommended as a positive control antibody for Western Blot analysis of enhanced human CRBP II expression in CRBP II transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



CRBP II (8-1#): sc-517437. Western blot analysis of CRBP II expression in non-transfected: sc-117752 (A) and human CRBP II transfected: sc-371576 (B) whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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) for detailed protocols and support products.