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CRBP I (m): 293T Lysate: sc-119442

BACKGROUND

The cellular retinol-binding proteins (CRBP I and II) belong to a superfamily of small cytoplasmic proteins which 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 10 antiparallel β -strands, which form a β -barrel that contains the retinol molecule, and two α -helices, which cover the open ends of the barrel. CRBP I mediates the cellular uptake of retinol, solubilizes and detoxifies it for further transport within the cytoplasm, and presents it to the appropriate enzymes to biosynthesize retinoic acid, an active form of retinol or retinyl esters, which are stored. CRBP I is expressed in human ovary, adrenal and pituitary glands and testis, and its expression is modulated by TGF β . CRBP II is expressed solely in the small intestine and mediates the absorption of retinoids and carotenoids to biosynthesize retinyl esters. CRBP III and CRBP IV are cytoplasmic proteins that, like CRBP I and CRBP II, form β -barrel structures and participate in the intracellular transport of retinol.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Rbp1 (mouse) mapping to 9 E3.3.

PRODUCT

CRBP I (m): 293T Lysate represents a lysate of mouse CRBP I transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

CRBP I (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CRBP I antibodies. Recommended use: 10-20 μ l per lane.

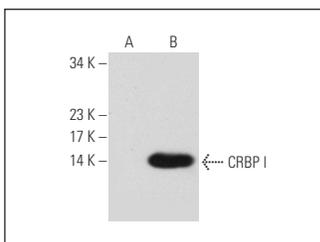
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CRBP I (B-8): sc-271208 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CRBP I expression in CRBP I transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

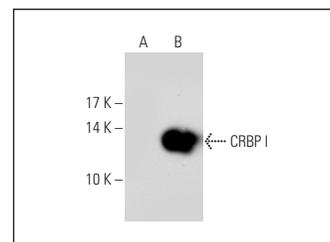
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 I (B-8): sc-271208. Western blot analysis of CRBP I expression in non-transfected: sc-117752 (A) and mouse CRBP I transfected: sc-119442 (B) 293T whole cell lysates.



CRBP I (F3): sc-53989. Western blot analysis of CRBP I expression in non-transfected: sc-117752 (A) and mouse CRBP I transfected: sc-119442 (B) 293T 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 for detailed protocols and support products.