

Mouse Anti-Human Cellular Retinoic Acid Binding Protein 2 Monoclonal Antibody

Cat. No. CAB11518MH Lot. No. (See product label)

SPECIFICATION

Product Overview Mouse Monoclonal Antibody to Human Cellular Retinoic Acid Binding Protein 2

Species Human

Source Mouse

Antigen Description

Cellular retinoic acid-binding protein 2, also known as Cellular retinoic acid-binding protein II, CRABP-II and CRABP2, is a protein which belongs to the calycin superfamily and Fatty-acid binding protein (FABP) family. Cellular retinoic acid binding proteins (CRABP) are low molecular weight proteins whose precise function remains unknown. The predicted amino acid sequences of human CRABP1 and CRABP2 demonstrated a 99.3 and 93.5% identity to mouse CRABP1 and CRABP2, respectively. CRABP2 forms a beta-barrel structure that accommodates hydrophobic ligands in its interior. Expression of CRABP2, but not CRABP1 mRNA, was markedly increased (greater than 15-fold) by retinoic acid treatment of fibroblasts cultured from human skin, whereas no significant induction of CRABP2 mRNA was observed in human lung fibroblasts. CRABP2 transports retinoic acid to the nucleus. It regulates the access of retinoic acid to the nuclear retinoic acid receptors. CRABP2 is necessary for elastin induction by All-trans retinoic acid (ATRA) in MRC-5 cells. It is expressed at low levels in emphysema fibroblasts. This alteration in the retinoic acid signalling pathway in lung fibroblasts may contribute to the defect of alveolar repair in human pulmonary emphysema.

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Specificity	Human CRABP2. No cross-reactivity with E.coli cell lysate in WB and ELISA
Immunogen	Recombinant human CRABP2 protein
Isotype	Mouse IgG2b
Clone	2I3G13B5
Applications	WB; ELISA
Dilution	<p>Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human CRABP2 in WB. Using a DAB detection system, the detection limit for human CRABP2 is approximately 2 ng/lane under non-reducing conditions and 1 ng/lane under reducing conditions</p> <p>ELISA: This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect human CRABP2. The detection limit for human CRABP2 is 0.16 ng/well</p>
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant human CRABP2. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 °C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 to -70°C. Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

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GENE INFORMATION

Gene Name	CRABP2 cellular retinoic acid binding protein 2 [Homo sapiens]
Official Symbol	CRABP2
Synonyms	CRABP2; cellular retinoic acid binding protein 2; cellular retinoic acid-binding protein 2; CRABP II; cellular retinoic acid-binding protein II; RBP6; CRABP-II;
Gene ID	1382
mRNA Refseq	NM_001199723
Protein Refseq	NP_001186652
MIM	180231
UniProt ID	P29373
Chromosome Location	1q21.3
Pathway	Vitamin A and carotenoid metabolism, organism-specific biosystem;
Function	lipid binding; retinal binding; retinoic acid binding; retinoid binding; retinol binding; transporter activity;

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