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## Product Information

### MONOCLONAL ANTI-CELLULAR RETINOIC ACID BINDING PROTEIN 1

#### Clone C-1

Mouse Ascites Fluid

Product Number **C 1608**

#### Product Description

Monoclonal Anti-Cellular Retinoic Acid Binding Protein 1 (CRABP1) is derived from the hybridoma produced by the fusion of NS-1 myeloma cells and splenocytes from a BALB/c mouse immunized with performic acid oxidized CRABP1 purified from bovine retina.

Monoclonal Anti-Cellular Retinoic Acid Binding Protein 1 recognizes CRABP1 (16 kDa) in human, monkey, cat, bovine, rabbit, rat, turtle, and chicken by immunoblotting, immunofluorescence and ELISA. This antibody does not react with chameleon, goldfish, or frog CRABP1. The use of this antibody has been restricted to retinal and cochlear CRABP1. This antibody does not cross-react with cellular retinol binding protein (CRBP), performic acid oxidized CRBP, interphotoreceptor retinoid binding protein or retinol binding protein. The activity of this antibody against CRABP2 has not been tested.

Retinoic acid (RA), a metabolite of vitamin A, plays an important role in growth and differentiation by modulating the expression of genes involved in these processes. RA functions through its interaction with the retinoic acid receptor (RAR) in the nucleus.

The cellular retinoic acid binding proteins bind RA with high affinity and belong to the family of fatty acid binding proteins.<sup>1</sup> Two forms of CRABP have been characterized. CRABP1 and CRABP2 possess 75% amino acid homology. Although not fully understood, the major role of CRABP1 may be directing retinoids from the cytoplasm to their target receptors in the nucleus while protecting them from degradation by non-specific dehydrogenases. The precise role of CRABP2 is also poorly understood, but it appears to play a role in the interaction of RA and 9-cis RA with their respective nuclear receptors (RAR and RXR), thus regulating transcriptional activity.<sup>2</sup>

#### Reagent

Monoclonal Anti-Cellular Retinoic Acid Binding Protein 1 is supplied as 100  $\mu$ l of ascites fluid diluted in phosphate buffered saline with 0.05 % sodium azide as preservative.

#### Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling.

#### Storage/Stability

Store at  $-20^{\circ}\text{C}$ . For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

The recommended working dilution is 1:1000 for immunoblotting and 1:250 for immunofluorescence. The working dilution for ELISA is assay dependent.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

#### References

1. Budhu, A., et al., J. Mol. Biol., **305**, 939-949 (2001).
2. Dong, D., et al., J. Biol. Chem., **274**, 23695-23698 (1999).

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