

# Datasheet



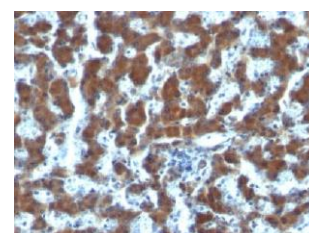
Mouse mAb to **Retinol Binding Protein**  
Clone **G4E4**  
Isotype **IgG1-κ**

## Source

A BALB/c mouse was immunized with human retinol binding protein purified from plasma.  
Fusion partner: SP2/0.

## Specifications

G4E4 recognizes an epitope within the 74-182 C-terminal sequence (11kD peptide fragment) of human serum Cellular Retinol Binding Protein 1 (CRBP 1), a single-chain glycoprotein belonging to the superfamily of hydrophobic molecule transporter proteins, which is responsible for transport of retinol (vitamin A1) from the liver to peripheral target tissues, like the eye, where it mediates the cellular uptake. CRBP 1 is synthesized by hepatic parenchymal cells where it becomes bound to its ligand retinol and is then released into the circulation, where it binds further to the protein transthyretin, to form a transporting complex, which is big enough not to be lost by filtration through the kidney glomeruli. It is detected in nearly all tissues with higher expression in adult ovary, pancreas, pituitary gland, adrenal gland, and fetal liver.



**Figure 1:** Human hepatocellular carcinoma stained with G4E4 (paraffin)

## Species reactivity

Positive: chimpanzee, goat, human, monkey, mouse, rabbit, rat, rhesus.

## Applications

Serology by ELISA to measure the availability of RBP directly and retinol indirectly. Sera from patients with breast and ovarian carcinomas contain a significantly lower amount of RBP than sera from normal individuals (unpublished data).

| ELISA | Frozen sections | Paraffin sections | Western blot |
|-------|-----------------|-------------------|--------------|
| +     | +               | Citrate           | +            |

## Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02 % sodium azide.

Stored at 4°C- 8°C, shelf life is at least 24 months after purchase.

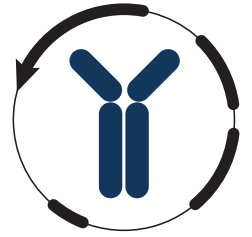
## Dilution advice

- ELISA (solid phase: not known; tracer: 0,001-100 µg/ml for 30 min at RT).
- Immunoblotting (0,5-1,0 µg/ml).
- Immunohistology (formalin-fixed: 2-4 µg/ml for 30 min at RT; staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes).

## Positive control

Liver.

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## References

- Reddy B. et al. *Biochem. Int.* **21**: 367-376 (1990).
- Reddy B. et al. *Molec. Immunol.* **29**: 511-516 (1992).
- Reddy B. et al. *Molec. Immunol.* **30**: 1355-1360 (1993).