

# Recombinant Human Retinol-binding protein 4/PRBP Protein

Catalog No.: RP00274 **Recombinant**

## Sequence Information

| Species | Gene ID | Swiss Prot |
|---------|---------|------------|
| Human   | 5950    | P02753     |

### Tags

C-His

### Synonyms

MCOPCB10; RDCCAS;RBP4;RDCCAS

## Product Information

| Source       | Purification       |
|--------------|--------------------|
| HEK293 cells | > 97% by SDS-PAGE. |

| Calculated MW | Observed MW |
|---------------|-------------|
| 21.91 kDa     | 23 kDa      |

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.


### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

This protein belongs to the lipocalin family and is the specific carrier for retinol (vitamin A alcohol) in the blood. It delivers retinol from the liver stores to the peripheral tissues. In plasma, the RBP-retinol complex interacts with transthyretin which prevents its loss by filtration through the kidney glomeruli. A deficiency of vitamin A blocks secretion of the binding protein posttranslationally and results in defective delivery and supply to the epidermal cells.

## Basic Information

### Description

Recombinant Human Retinol-binding protein 4/PRBP Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Glu19-Leu201) of human RBP4 (Accession #NP\_006735.2) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Human RBP4 Protein at 2 μg/mL (100 μL/well) can bind RBP4 Rabbit mAb with a linear range of 0.12-2.4 ng/mL.

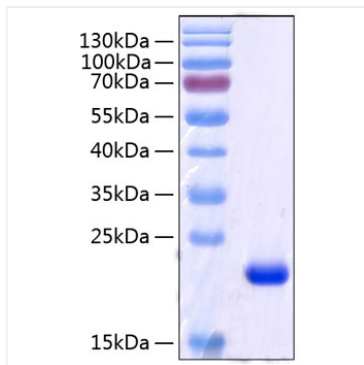
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

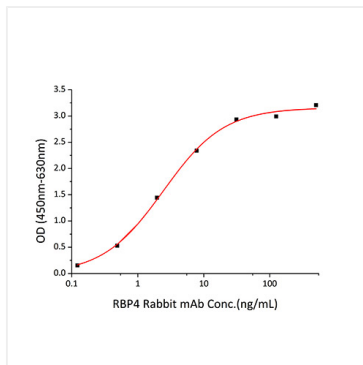
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

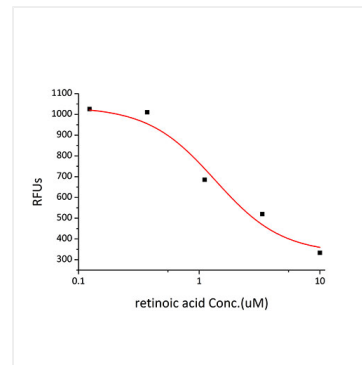
## Validation Data



Recombinant Human Retinol-binding protein 4/PRBP Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 23 kDa.



Immobilized Human RBP4 Protein at 2  $\mu\text{g/mL}$  (100  $\mu\text{L/well}$ ) can bind RBP4 Rabbit mAb with a linear range of 0.12-2.4 ng/mL.



Recombinant human RBP4 binds all-trans retinoic acid. The binding of retinoic acid results in the quenching of Trp fluorescence in RBP4. The 50% binding concentration (BC50) is  $> 1.35 \mu\text{M}$ .