

# PRODUCT INFORMATION



## Serum Retinol Binding Protein 4 Polyclonal Antibody

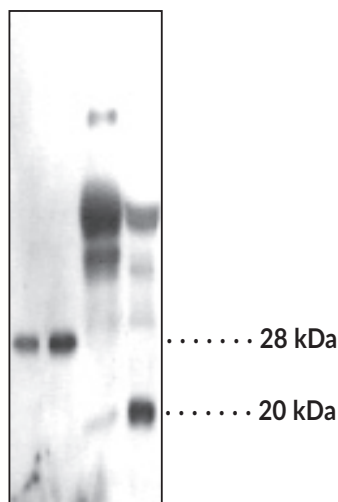
Item No. 10007681

### Overview and Properties

**Contents:** This vial contains peptide affinity-purified IgG.  
**Synonyms:** Plasma Retinol Binding Protein 4, pRBP, sRBP4  
**Immunogen:** Human sRBP4 amino acids 28-37 (RVKENFDKAR)  
**Species Reactivity:** (+) Human sRBP4; other species not tested  
**Form:** Liquid  
**Storage:** -20°C (as supplied)  
**Stability:** ≥3 years  
**Storage Buffer:** 500 ul TBS, pH 7.4, with 50% glycerol, 0.5 mg/ml BSA, and 0.02% sodium azide  
**Host:** Rabbit  
**Applications:** Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image

1 2 3 4



**Lane 1:** Recombinant sRBP4 (6X His-tagged) (0.075 µg)  
**Lane 2:** Recombinant sRBP4 (6X His-tagged) (0.150 µg)  
**Lane 3:** Human Plasma (-Albumin) (12 µg)  
**Lane 4:** Human Plasma (50 µg)

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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**CAYMAN CHEMICAL**  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM

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## Description

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Serum retinol binding protein 4 (sRBP4) binds one equivalent of vitamin A and is one of the major retinol carriers found in the blood of mammals.<sup>1,2</sup> Human RBP4 is a monomeric 21 kDa  $\beta$ -sheet-rich protein that contains three disulfide bonds and belongs to the lipocalin protein family.<sup>3</sup> sRBP4 is synthesized and sequestered in hepatocytes until retinol binding triggers its secretion.<sup>3</sup> In plasma, sRBP4 typically forms a 1:1 complex with the 55 kDa tetrameric protein transthyretin (TTR) which prevents RBP from being removed from the plasma by glomerular filtration.<sup>4</sup> Recent studies have shown that sRBP4 is an adipocyte-derived "signal" that may contribute to the pathogenesis of type 2 diabetes.<sup>5,6</sup> Elevation of sRBP4 causes systemic insulin resistance whereas reduction of serum concentrations improves insulin action.<sup>5,7,8</sup> The highest known concentrations of this protein exist in serum, liver, and skeletal muscle.<sup>5,8,9</sup>

## References

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1180 EAST ELLSWORTH RD  
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