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**SZABO-SCANDIC HandelsgmbH**

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

# Product Information

## Serum Retinol Binding Protein 4 Blocking Peptide

*Item No. 10007682*

Serum retinol binding protein (sRBP4) binds one equivalent of vitamin A and is one of the major retinol carriers found in the blood of mammals.[1,2] Human RBP4 is a monomeric 21 kDa β-sheet-rich protein that contains three disulfide bonds and belongs to the lipocalin protein family.[3] sRBP4 is synthesized and sequestered in hepatocytes until retinol binding triggers its secretion.[3] 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.[4] Recent studies have shown that sRBP4 is an adipocyte-derived 'signal' that may contribute to the pathogenesis of type 2 diabetes.[5,6] Elevation of sRBP4 causes systemic insulin resistance whereas reduction of serum concentrations improves insulin action.[5,7,8] The highest known concentrations of this protein exist in serum, liver, and skeletal muscle.[5,8,9]

### Laboratory Procedures

This vial contains 200 µg peptide in 200 µl TBS, pH 7.4, containing 0.1% BSA and 0.02% sodium azide. The sRBP blocking peptide (human amino acids 28-37) can be used in conjunction with Cayman's sRBP4 Polyclonal Antibody (Item No. 10007681) to block protein-antibody complex formation during immunochemical analysis of sRBP4.

Store this peptide solution at -20°C. It will be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the sRBP4 Polyclonal Antibody (Item No. 10007681) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 40 µl of antibody and 40 µl of peptide.*
2. Incubate for one hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

### References


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**Cayman Chemical**

**Mailing address**
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

**Phone**
(800) 364-9897
(734) 971-3335

**Fax**
(734) 971-3640

**E-Mail**
custserv@caymanchem.com

**Web**
www.caymanchem.com