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. Human RBP4 is a monomeric 21 kDa β-sheet-rich protein that contains three disulfide bonds and belongs to the lipocalin protein family. sRBP4 is synthesized and sequestered in hepatocytes until retinol binding triggers its secretion. 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. Recent studies have shown that sRBP4 is an adipocyte-derived ‘signal’ that may contribute to the pathogenesis of type 2 diabetes. Elevation of sRBP4 causes systemic insulin resistance whereas reduction of serum concentrations improves insulin action. The highest known concentrations of this protein exist in serum, liver, and skeletal muscle.

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.

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10007682

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

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Material Safety Data

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent by the manufacturer to you.

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Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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