Human RBP4/Retinol-Binding Protein 4 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3378

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human RBP4 in direct ELISAs and Western blots. In direct ELISAs, less then 50% cross-reactivity with recombinant mouse RBP4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human RBP4 Glu19-Leu201 Accession # P02753
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

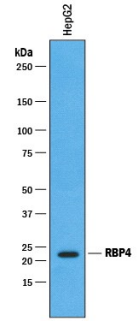
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	50 µg/mL	See Below

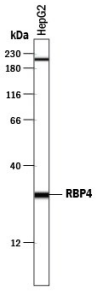
DATA

Western Blot



Detection of Human RBP4/Retinol-Binding Protein 4 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human RBP4/Retinol-Binding Protein 4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3378) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for RBP4/Retinol-Binding Protein 4 at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human RBP4/Retinol-Binding Protein 4 by Simple Western™. Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for RBP4/Retinol-Binding Protein 4 at approximately 29 kDa (as indicated) using 50 µg/mL of Goat Anti-Human RBP4/Retinol-Binding Protein 4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3378) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Retinol (also known as vitamin A) is unstable and insoluble in the aqueous solution (1, 2). However, retinol becomes quite stable and soluble in plasma due to its tight interaction with retinol-binding protein 4 (RBP4), also known as plasma retinol-binding protein. A prototypic member of the lipocalin superfamily, RBP4 has a β-barrel structure with a well-defined cavity. It is secreted from the liver, a process requiring the availability of retinol. RBP4 delivers retinol from the liver to the peripheral tissues. In plasma, the RBP4-retinol complex interacts with transthyretin (TTR), also known as thyroxine-binding protein and prealbumin. The retinol-RBP4-TTR complex prevents the loss of RBP4 by filtration through the kidney and increases the stability of the retinol-RBP4 complex. Defects in RBP4 cause retinol-binding protein deficiency, which affects night vision.

References:

1. Zanotti, G. and R. Berni (2004) Vitamins and Hormones **69:**271.
2. Newcomer, M.E. and D.E. Ong (2000) Biochim. Biophys. Acta **1482**:57.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956