**BACKGROUND**

Retinol (Vitamin A) is transported in the blood bound to its carrier protein, retinol-binding protein (RBP), also designated plasma retinol-binding protein (PRBP) or RBP4. A member of the lipocalin family, RBP conveys retinol from stores in the liver to peripheral tissues. Plasma RBP binds transthyretin (TTR, formerly called prealbumin) to prevent glomerular filtration of low molecular weight RBP in the kidneys. The stability of this complex holds diagnostic importance because the molar ratio of RBP:TTR provides an indirect way to indicate marginal vitamin A deficiency. Vitamin A deficiency blocks the secretion of RBP, resulting in defective delivery and supply to epidermal cells. Originally identified solely as a transporter protein, recent studies correlating increased levels of RBP expression in adipose tissue with Insulin resistance have generated research into the possible roles the protein may play in the pathogenesis of type 2 diabetes and obesity.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: RBP4 (human) mapping to 10q23.33; Rbp4 (mouse) mapping to 19 C3.

**SOURCE**

RBP (FL-201) is a rabbit polyclonal antibody raised against amino acids 1-201 representing full length RBP of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

RBP (FL-201) is recommended for detection of precursor and mature RBP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein [1 ml of cell lysate]], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RBP (FL-201) is also recommended for detection of precursor and mature RBP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RBP siRNA (h): sc-44071, RBP siRNA (m): sc-44578, RBP shRNA Plasmid (h): sc-44071-SH, RBP shRNA Plasmid (m): sc-44578-SH, RBP shRNA (h) Lentiviral Particles: sc-44071-V and RBP shRNA (m) Lentiviral Particles: sc-44578-V.

Molecular Weight of RBP: 25 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284 or Hep G2 cell lysate: sc-2227.

**DATA**

RBP (FL-201): sc-25850. Western blot analysis of RBP expression in MDCK (A) and MES-SA/Dx5 (B) whole cell lysates.

RBP (FL-201): sc-25850. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islets of Langerhans and glandular cells (B).

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

**Try RBP (C-4): sc-48384 or RBP (F-12): sc-46688, our highly recommended monoclonal alternatives to RBP (FL-201).**