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. In 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 10q23.3; Rbp4 (mouse) mapping to 19 C3.

SOURCE

RBP (20F9) is a mouse monoclonal antibody raised against purified RBP of human origin.

PRODUCT

Each vial contains IgG1 in 100 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

RBP (20F9) is recommended for detection of RBP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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, human plasma extract: sc-364347 or Hep G2 cell lysate: sc-2227.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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