Recombinant Protein Technical Manual

Recombinant Human RBP4 Protein (His Tag)(Active)

RPES3926

Product Data:

Product SKU: RPES3926

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_006735.2

Protein Information:

Molecular Mass:

AP Molecular Mass: 23 kDa

Tag: C-His

Bio-activity: Measured by its ability to bind all-trans retinoic acid. The binding of retinoic acid results in the quenching of Trp fluorescence in RBP4. The 50% binding concentration (BC50) is > 1.0 µM

Purity: > 85 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.2

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: RDCCAS;Retinol-Binding Protein 4; Plasma Retinol-Binding Protein; PRBP; RBP; RBP4

Immunogen Information:

Sequence: Met 1-Leu 201

Background:

Retinol-binding protein 4 (RBP4) is the specific carrier for retinol (also known as vitamin A), and is responsible for the conversion of unstable and insoluble retinol in aqueous solution into stable and soluble complex in plasma through their tight interaction. As a member of the lipocalin superfamily, RBP4 containing a β-barrel structure with a well-defined cavity is secreted from the liver, and in turn delivers retinol from the liver stores to the peripheral tissues. In plasma, the RBP4-retinol complex interacts with transthyretin (TTR), and this binding is crucial for preventing RBP4 excretion through the kidney glomeruli. RBP4 expressed from an ectopic source efficiently delivers retinol to the eyes, and its deficiency affects night vision largely. Recently, RBP4 as an adipokine, is found to be expressed in adipose tissue and correlated with obesity, insulin resistance (IR) and type 2 diabetes (T2DM).