

**Retinol Binding Protein-4 Human Recombinant, His tag
GROWTH FACTOR**

Catalog Number: PRP-555CYT
Quantity: 2 micrograms, 10 micrograms, 1 milligram
Format: White lyophilized (freeze-dried) powder.
Host: *E. coli*

Background:

Retinol binding protein 4(RBP4) belongs to the lipocalin family and is the specific carrier for retinol (vitamin A alcohol) in the blood. This protein was found to be expressed and secreted by adipose tissue, and was strongly associated with insulin resistance. It delivers retinol from the liver stores to the peripheral tissues. In plasma, the RBP-retinol complex interacts with transthyretin which prevents its loss by filtration through the kidney glomeruli.

RBP4 delivers retinol from the liver to the peripheral tissues. In plasma, the rbp-retinol complex interacts with transthyretin, this prevents its loss by filtration through the kidney glomeruli.

Specificity and Preparation:

RBP-4 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 204 amino acids and having a molecular mass of 23 kDa. RBP4 is fused to N-terminus His tag which contains additional 21 amino acids. RBP4 sequence is identical to UniProtKB/Swiss-Prot entry Q5VY30 amino acids 16–199. The Retinol Binding Protein-4 is purified by proprietary chromatographic techniques. RBP-4 His tag was filtered (0.4 µm) and lyophilized from 0.5 mg/ml in PBS buffer, pH 7.5. Purity is greater than 95.0% as determined by RP-HPLC and SDS-PAGE. Biological Activity determined by its ability to bind all trans retinol acids. The binding of RBP4 to all trans retinol acids results in quenching of Trp fluorescence. 0.5M retinol acids/per M RBP4.

Amino acid sequence: MSWWHHHHHH NWNIPPTQDT TERDCRVSSF RVKENFDKAR FSGTWYAMAK
KDPEGLFLQD NIVAEFSVDE TGQMSATAKG RVRLNNDWDV CADMVGTFD TEDPAKFKMK
YWGVASFLQK GNDDHWIVDT DYDTYAVQYS CRLNLDGTC ADSYSFVFSR DPNGLPPEAQ
KIVRQRQEEL CLARQYRLIV HNGYCDGRSERNLL.

Usage and Storage:

It is recommended to reconstitute the material in sterile deionized water to a working volume of 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Although stable at room temperature for 3 weeks, the material should be stored desiccated below -18°C. Upon reconstitution, store at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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