

Recombinant Mouse RBP4 Protein (His Tag)

Catalog No. PKSM040828

Note: Centrifuge before opening to ensure complete recovery of vial contents.

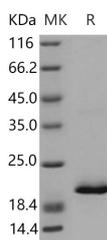
Description

Synonyms	Rbp-4
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Leu 201
Accession	NP_035385.1
Calculated Molecular Weight	22.8 kDa
Observed molecular weight	22.8 kDa
Tag	C-His
Bioactivity	Measured by its ability to bind alltrans retinoic acid. The binding of retinoic acid results in the quenching of Trp fluorescence in RBP4. The 50% binding concentration (BC50) is $> 0.5 \mu\text{M}$

Properties

Purity	$> 95 \%$ as determined by reducing SDS-PAGE.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C . Reconstituted protein solution can be stored at $4-8^{\circ}\text{C}$ for 2-7 days. Aliquots of reconstituted samples are stable at $< -20^{\circ}\text{C}$ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



$> 95 \%$ as determined by reducing SDS-PAGE.

Background

Retinol-binding protein 4 (RBP4) is the specific carrier for retinol (also known as vitamin A), and is responsible for the

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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).