## Retinol Binding Protein – 4 (RBP4)

**Method:** Enzyme-linked immunosorbent assay (ELISA)

**Kit Manufacturer:** ALPCO Diagnostics, Salem, NH

**Description:**
This Enzyme-Linked Immunosorbent Assay (ELISA) can be used for quantitative determination of Retinol-binding protein (RBP) in plasma, serum and urine. In a first incubation step, RBP in the samples is bound to polyclonal rabbit anti RBP antibodies, immobilized on the microtitre plate. A peroxidase-conjugated anti RBP antibody is used for detection and quantification, and tetramethylbenzidine (TMB) as a peroxidase substrate. A dose response curve of absorbance unit (optical density at 450 nm) vs. concentration is generated using the values obtained from standard. RBP present in the samples is determined directly from this curve.

### Collection and Performance Characteristics

| Tube type: | Preferred: SST  
Alternate: EDTA or Heparin |
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<tbody>
<tr>
<td>Minimum Volume:</td>
<td>0.2 mL</td>
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<tr>
<td>Lowest Reportable Value:</td>
<td>1 mg/dL</td>
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<td>Dynamic Range:</td>
<td>1-165 mg/L</td>
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| Precision: | Intra-assay variation is 9.2%  
Inter-assay variation is 16.2% |
| Reference Range: | Adults: 30-75 mg/L  
Newborns: 11 – 34 mg/L  
6 months old: 18 – 50 mg/L |