

## Product Datasheet

### Retinol Binding Protein 4 Antibody / RBP4 (orb699772)

<b>Description</b>	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.
<b>Species/Host</b>	Mouse
<b>Reactivity</b>	Human
<b>Conjugation</b>	Unconjugated
<b>Tested Applications</b>	IHC-P, WB
<b>Immunogen</b>	A portion of amino acids 29-148 from the human protein was used as the immunogen for the RBP4 antibody.
<b>Preservatives</b>	0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin (US sourced), 0.05% sodium azide
<b>Storage</b>	Store the RBP4 antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).
<b>Note</b>	For research use only
<b>Application notes</b>	Optimal dilution of the RBP4 antibody should be determined by the researcher.
<b>Formula</b>	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide

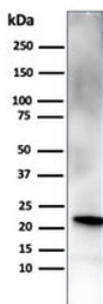
#### Biorbyt Ltd.

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

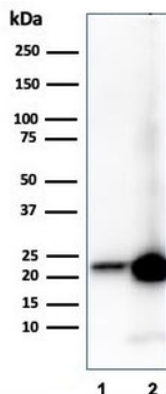
#### Biorbyt LLC.

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

<b>Isotype</b>	Mouse IgG2b, kappa
<b>Clonality</b>	Monoclonal
<b>Clone Number</b>	RBP4/4314
<b>Antibody Type</b>	Primary Antibody
<b>Purity</b>	Protein G affinity chromatography
<b>Uniprot ID</b>	<b>P02753</b>
<b>Hazard Information</b>	This RBP4 antibody is available for research use only.
<b>Dilution Range</b>	Western blot: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
<b>Expiration Date</b>	12 months from date of receipt.



Western blot testing of human pancreas tissue with RBP4 antibody. Predicted molecular weight ~23 kDa.



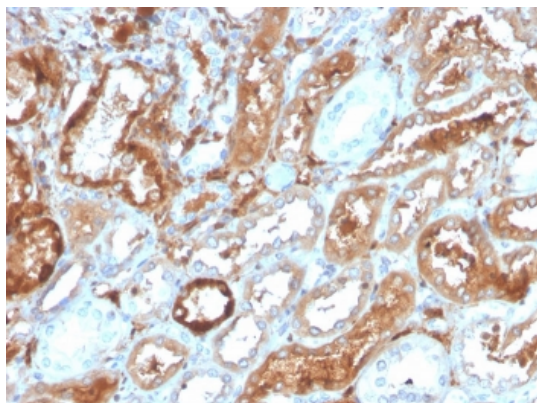
Western blot testing of human 1) liver and 2) kidney tissue with RBP4 antibody. Predicted molecular weight ~23 kDa.

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Phone: [+44 \(0\) 1223 859-353](tel:+44201223859353) | Fax: [+1 \(415\) 651-8558](tel:+14156518558)

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IHC staining of FFPE human kidney with RBP4 antibody. HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

#### Human Protein Microarray Specificity Validation



Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using RBP4 antibody. These results demonstrate the foremost specificity of the RBP4/4314 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

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