

Datasheet: MCA2344

**BATCH NUMBER 161372**

<b>Description:</b>	MOUSE ANTI HUMAN CD221
<b>Specificity:</b>	CD221
<b>Other names:</b>	IGF-1 RECEPTOR
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1H7
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/10
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			1/10 - 1/40
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Purified human placental IGF-I receptor.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P08069</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3480</a>    IGF1R    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_566647
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD221 antibody, clone 1H7</b> recognizes human CD221, a ~155 kDa receptor tyrosine kinase, also known as Insulin-like growth factor I receptor (IGF-I Receptor). CD221 is composed of two extracellular alpha-subunits and two transmembrane beta-subunits. Clone 1H7 recognizes an epitope in the alpha subunits of CD221, demonstrated by western blotting (<a href="#">Li et al.1993</a>).</p> <p>CD221 is expressed in a range of tissues, including kidney, liver, placenta, mammary gland, brain, ovary and skin.</p> <p>The ligands for CD221 include IGF-I and IGF-II, which bind to CD221 and activate tyrosine kinase activity, resulting in phosphorylation of several intracellular signaling proteins. Clone 1H7 is reported to partially block binding of IGF-I and IGF-II to CD221 (<a href="#">Li et al.1993</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>Histology Positive Control Tissue</b>	Pancreas, placenta
<b>References</b>	<ol style="list-style-type: none"> <li>Li, S.L. <i>et al.</i> (1993) Two new monoclonal antibodies against the alpha subunit of the human insulin-like growth factor-I receptor. <a href="#">Biochem Biophys Res Commun. 196 (1): 92-8.</a></li> <li>Beauvais, D.M. &amp; Rapraeger, A.C. (2010) Syndecan-1 couples the insulin-like growth factor-1 receptor to inside-out integrin activation. <a href="#">J Cell Sci. 123 (Pt 21): 3796-807.</a></li> <li>Krieger, C.C. <i>et al.</i> (2016) Thyrotropin/IGF-1 receptor crosstalk in Graves' ophthalmopathy pathogenesis. <a href="#">J Clin Endocrinol Metab. Apr 4: jc20161315. [Epub ahead of print]</a></li> <li>van Valen, F. <i>et al.</i> (2012) A Novel Role of IGF1 in Apo2L/TRAIL-Mediated Apoptosis of</li> </ol>

Ewing Tumor Cells. [Sarcoma. 2012: 782970.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2344>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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