

Datasheet: MCA2344

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

Product Details

RRID AB_566647

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.

	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.

Target Species Human

Product Form Purified IgG - liquid

Preparation Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide

Carrier Free Yes

Approx. Protein IgG concentration 1.0 mg/ml

Concentrations

Immunogen Purified human placental IGF-I receptor.

External Database Links

UniProt:

[P08069](#) [Related reagents](#)

Entrez Gene:

[3480](#) IGF1R [Related reagents](#)

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0 myeloma cell line.

Specificity

Mouse anti Human CD221 antibody, clone 1H7 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 ([Li et al.1993](#)).

CD221 is expressed in a range of tissues, including kidney, liver, placenta, mammary gland, brain, ovary and skin.

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 ([Li et al.1993](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

Histology Positive Control Tissue

Pancreas, placenta

References

1. Li, S.L. *et al.* (1993) Two new monoclonal antibodies against the alpha subunit of the human insulin-like growth factor-I receptor. [Biochem Biophys Res Commun. 196 \(1\): 92-8.](#)
 2. Beauvais, D.M. & Rapraeger, A.C. (2010) Syndecan-1 couples the insulin-like growth factor-1 receptor to inside-out integrin activation. [J Cell Sci. 123 \(Pt 21\): 3796-807.](#)
 3. Krieger, C.C. *et al.* (2016) Thyrotropin/IGF-1 receptor crosstalk in Graves' ophthalmopathy pathogenesis. [J Clin Endocrinol Metab. Apr 4: jc20161315. \[Epub ahead of print\]](#)
 4. van Valen, F. *et al.* (2012) A Novel Role of IGF1 in Apo2L/TRAIL-Mediated Apoptosis of Ewing Tumor Cells. [Sarcoma. 2012: 782970.](#)
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Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

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

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'M342151:190110'

Printed on 16 Mar 2019
