

Datasheet: MCA2344PE

Description:	MOUSE ANTI HUMAN CD221:RPE
Specificity:	CD221
Other names:	IGF-1 RECEPTOR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	1H7
Isotype:	IgG1
Quantity:	100 TESTS

Product Details

RRID AB_566646

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	■			Neat

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.

Target Species Human

Product Form Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution Reconstitute with 1 ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

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

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide
Stabilisers 1% Bovine Serum Albumin
 5% Sucrose

Immunogen Purified human placental IGF-I receptor.

External Database **UniProt:**

Links

[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.

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.](#)

Storage

Prior to reconstitution store at +4°C.
Following reconstitution store at +4°C.
DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of reconstitution.

Health And Safety Information

Material Safety Datasheet documentation #10075 available at:
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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