![Bio-Rad logo]

Datasheet: MCA2632PE

Description:	MOUSE ANTI HUMAN B7-H4:RPE
Specificity:	B7-H4
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	MIH43
Isotype:	IgG1
Quantity:	100 TESTS

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			neat

Where this product 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 product 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 1.0ml 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 Stabilisers

0.09% Sodium Azide (NaN_3)

1% Bovine Serum Albumin

5% Sucrose

Immunogen	Human B7-H4.
External Database Links	**UniProt:** Q7Z7D3 Related reagents **Entrez Gene:** 79679 VTCN1 Related reagents
Synonyms	B7H4
RRID	AB_1172154
Specificity	**Mouse anti Human B7-H4 antibody, clone MIH43** recognizes human B7-H4, also known as B7x, a costimulatory protein which is reported to function as a negative regulator of T-cell mediated immunity. Although B7-H4 binds an unknown receptor, it is thought to deliver an inhibitory signal to T-cells preventing their proliferation, cell cycle progression and interleukin-2 production. B7-H4 deficient mice are only minimally affected; suggesting B7-H4 is important in the fine tuning of the T-cell mediated immune response. B7-H4 is expressed on activated T-cells, B-cells, monocytes and dendritic cells. Aberrant expression has been associated with cancers of the lung, breast and ovary in humans. B7-H4 could be a useful prognostic marker in Renal Cell Carcinoma (RCC).
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul.
References	1. van de Ven, R. *et al.* (2011) Characterization of four conventional dendritic cell subsets in human skin-draining lymph nodes in relation to T-cell activation. Blood. 118: 2502-10. 2. Lichtenegger, F.S. *et al.* (2012) CD86 and IL-12p70 are key players for T helper 1 polarization and natural killer cell activation by Toll-like receptor-induced dendritic cells. PLoS One. 7 (9): e44266. 3. Seliger, B. (2014) B7-H abnormalities in melanoma and clinical relevance. Methods Mol Biol. 1102: 367-80. 4. Kludka-Sternik, M. *et al.* (2010) The expression of B7-H1 and B7-H4 molecules on immature myeloid and lymphoid dendritic cells in cord blood of healthy neonates. Folia Histochem Cytobiol. 48 (4): 658-62. 5. Quandt, D. *et al.* (2014) Synergistic effects of IL-4 and TNFα on the induction of B7-H1 in renal cell carcinoma cells inhibiting allogeneic T cell proliferation. J Transl Med. 12: 151. 6. Darmochwal-Kolarz, D. *et al.* (2013) The expressions of co-stimulatory molecules are altered on putative antigen-presenting cells in cord blood. Am J Reprod Immunol. 69 (2): 180-7. 7. Dangaj, D. & Scholler, N. (2015) Isolation and Validation of Anti-B7-H4 scFvs from an Ovarian Cancer scFv Yeast-Display Library. Methods Mol Biol. 1319: 37-49. 8. Schulte, B.M. *et al.* (2015) Enterovirus-infected β-cells induce distinct response patterns in BDCA1+ and BDCA3+ human dendritic cells. PLoS One. 10 (3): e0121670. 9. Heeren, A.M. *et al.* (2015) High and interrelated rates of PD-L1+CD14+ antigen-presenting cells and regulatory T cells mark the microenvironment of metastatic lymph nodes from patients with cervical cancer. Cancer Immunol Res. 3 (1): 48-58.

Storage	Store at +4ºC 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	18 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)

| **North & South America** | Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com | **Worldwide** | Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739
Email: antibody_sales_uk@bio-rad.com | **Europe** | Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
Email: antibody_sales_de@bio-rad.com |

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