Datasheet: MCA2632

Description:	MOUSE ANTI HUMAN B7-H4
Specificity:	B7-H4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MIH43
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/25 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			1/50
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays			▪	

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 - 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 (NaN_3)
Approx. Protein	IgG concentration 1.0 mg/ml

Concentrations	
Immunogen	Human B7-H4.
External Database Links	**UniProt:** Q7Z7D3 Related reagents **Entrez Gene:** 79679 VTCN1 Related reagents
Synonyms	B7H4
RRID	AB_1100469
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.
Immunohistology	This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.
Histology Positive Control Tissue	Tonsil, breast carcinoma
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 +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. 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
Regulatory	For research purposes only

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®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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
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