

Datasheet: MCA2257GA

Description: MOUSE ANTI HUMAN CD22	
Specificity:	CD226
Other names:	DNAM-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	DX11
Isotype:	lgG1
Quantity:	0.1 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 - 1/100
Immunohistology - Frozen				
Immunohistology - Paraffin				
ELISA				
Immunoprecipitation				
Western Blotting			•	

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 A supernatant	A from tissue culture
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.09% sodium azide (NaN ₃)	

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human cytotoxic T lymphocyte clone
External Database Links	UniProt: Q15762 Related reagents Entrez Gene: 10666 CD226 Related reagents
Synonyms	10666 CD226 Related reagents DNAM1
RRID	AB_324796
Fusion Partners	Spleen cells from immunized BALB/c mouse were fused with cells of the Sp2/0 myeloma cell line
Specificity	Mouse anti Human CD226 antibody, clone DX11 recognizes human CD226, a ~65 kDa glycoprotein, also known as DNAM1 (DNAX accessory molecule-1). CD226 is broadly expressed on T-cells, NK cells, platelets, monocytes and a subset of B cells. CD226 is also expressed by a subset of CD3 positive thymocytes.
	Mouse anti Human CD226 antibody, clone DX11 is reported to inhibit T- and NK cell mediated cytotoxicity against tumor cell targets and to block TNF alpha and IFN gamma secretion by alloantigen-specific T-cells (Kojima et al. 2003).
Flow Cytometry	Use 10µl of the suggested working dilution to label 1 x 10 ⁶ cells in 100µl
References	 Shibuya, A. <i>et al.</i> (1996) DNAM-1, a novel adhesion molecule involved in the cytolytic function of T lymphocytes. Immunity. 4 (6): 573-81. Shibuya, A. <i>et al.</i> (1998) Protein kinase C is involved in the regulation of both signaling and adhesion mediated by DNAX accessory molecule-1 receptor. J Immunol. 161 (4): 1671-6.

- Memory CD4+ T Cells. J Immunol. 186: 1763-8.
- 5. Ardolino, M. et al. (2011) DNAM-1 ligand expression on Ag-stimulated T lymphocytes is mediated by ROS-dependent activation of DNA-damage response: relevance for NK-T cell interaction. Blood. 117: 4778-86.
- 6. Soriani, A. et al. (2009) ATM-ATR-dependent up-regulation of DNAM-1 and NKG2D ligands on multiple myeloma cells by therapeutic agents results in enhanced NK-cell susceptibility and is associated with a senescent phenotype. <u>Blood. 113: 3503-11.</u>

- 7. Fionda, C. *et al.* (2009) Heat shock protein-90 inhibitors increase MHC class I-related chain A and B ligand expression on multiple myeloma cells and their ability to trigger NK cell degranulation. J Immunol. 183 (7): 4385-94.
- 8. Matusali, G. *et al.* (2012) The Human Immunodeficiency Virus Type 1 Nef and Vpu Proteins Downregulate the Natural Killer Cell-Activating Ligand PVR. <u>J Virol. 86:</u> 4496-504.
- 9. Fionda, C. *et al.* (2015) Nitric oxide donors increase PVR/CD155 DNAM-1 ligand expression in multiple myeloma cells: role of DNA damage response activation. <u>BMC Cancer. 15 (1): 17.</u>
- 10. Molfetta, R. *et al.* (2019) The Ubiquitin-proteasome pathway regulates Nectin2/CD112 expression and impairs NK cell recognition and killing. Eur J Immunol. 49 (6): 873-83.
- 11. Vulpis, E. *et al.* (2022) Impact on NK cell functions of acute versus chronic exposure to extracellular vesicle-associated MICA: Dual role in cancer immunosurveillance. <u>J Extracell Vesicles</u>. 11 (1): e12176.
- 12. Molfetta, R. *et al.* (2020) CD155: A Multi-Functional Molecule in Tumor Progression. Int J Mol Sci. 21 (3): 922.
- 13. Zitti, B. *et al.* (2017) Innate immune activating ligand SUMOylation affects tumor cell recognition by NK cells. <u>Sci Rep. 7 (1): 10445.</u>
- 14. Mekhloufi, A. *et al.* (2020) Bone Marrow Stromal Cell-Derived IL-8 Upregulates PVR Expression on Multiple Myeloma Cells via NF-kB Transcription Factor. <u>Cancers (Basel).</u> 12 (2): 440.

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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2257GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...)

Goat Anti Mouse IgG (STAR70...)

Rabbit Anti Mouse IgG (STAR13...)

Goat Anti Mouse IgG (Fc) (STAR120...)

FITC, HRP

Rabbit Anti Mouse IgG (STAR9...)

FITC

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
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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 'M413617:221123'

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