

## Datasheet: MCA2257PE BATCH NUMBER INN1610

| Specificity:CD226Other names:DNAM-1Format:RPEProduct Type:Monoclonal AntibodyClone:DX11Isotype:IgG1 |               |                            |
|---|---------------|----------------------------|
| Other names:DNAM-1Format:RPEProduct Type:Monoclonal AntibodyClone:DX11Isotype:IgG1                  | Description:  | MOUSE ANTI HUMAN CD226:RPE |
| Format:RPEProduct Type:Monoclonal AntibodyClone:DX11Isotype:IgG1                                    | Specificity:  | CD226                      |
| Product Type:Monoclonal AntibodyClone:DX11Isotype:IgG1  | Other names:  | DNAM-1                     |
| Clone: DX11<br>Isotype: IgG1  | Format:       | RPE                        |
| Isotype: IgG1   | Product Type: | Monoclonal Antibody        |
|   | Clone:        | DX11                       |
| Quantity: 100 TESTS   | lsotype:      | lgG1                       |
|   | 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 <u>www.bio-rad-antibodies.com/protocols</u> . |                |           |                        |                    |  |
|-----------------------------|--|----------------|-----------|------------------------|--------------------|--|
|                             |  | 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 conjugate   | d to R. Phyc   | oerythrin | (RPE) - lyophilized    |                    |  |
| Reconstitution              | Reconstitute with 1.0 ml distilled water   |                |           |                        |                    |  |
| Max Ex/Em                   | Fluorophore  | Excitation M   | lax (nm)  | Emission Max (nm)      |                    |  |
|                             | RPE 488nm laser  | 496            |           | 578                    |                    |  |
| Preparation                 | Purified IgG prepared supernatant  | by affinity ch | romatogr  | aphy on Protein A fror | n tissue culture   |  |
| Buffer Solution             | Phosphate buffered sa  | lline          |           |                        |                    |  |
| Preservative<br>Stabilisers | 0.09% Sodium Azide<br>1.0% Bovine Serum A  | Albumin        |           |                        |                    |  |

|                            | 5% Sucrose  |
|----------------------------|---|
| Immunogen                  | Human cytotoxic T lymphocyte clone  |
| External Database<br>Links | UniProt:<br><u>Q15762</u> <u>Related reagents</u><br>Entrez Gene:<br><u>10666</u> CD226 <u>Related reagents</u>   |
| Synonyms                   | DNAM1   |
| RRID                       | AB_566655   |
| Fusion Partners            | Spleen cells from immunized BALB/c mouse were fused with cells of the Sp2/0 myeloma cell line   |
| Specificity                | <ul> <li>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.</li> <li>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 <i>et al.</i> 2003).</li> </ul>   |
| Flow Cytometry             | Use 10ul of the suggested working dilution to label 1 x $10^6$ cells in 100ul.  |
| References                 | <ol> <li>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.</li> <li>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.</li> <li>Kojima, H. <i>et al.</i> (2003) CD226 mediates platelet and megakaryocytic cell adhesion to vascular endothelial cells. J Biol Chem. 278 (38): 36748-53.</li> <li>Manes, T.D. and Pober, J.S. (2011) Identification of Endothelial Cell Junctional Proteins and Lymphocyte Receptors Involved in Transendothelial Migration of Human Effector Memory CD4+ T Cells. J Immunol. 186: 1763-8.</li> <li>Ardolino, M. <i>et al.</i> (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.</li> <li>Soriani, A. <i>et al.</i> (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. Blood. 113: 3503-11.</li> <li>Fionda, C. <i>et al.</i> (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.</li> </ol> |

|                                    | 8. Matusali, G. <i>et al.</i> (2012) The Human Immunodeficiency Virus Type 1 Nef and Vpu Proteins Downregulate the Natural Killer Cell-Activating Ligand PVR. <u>J Virol. 86:</u><br><u>4496-504.</u>   |
|------------------------------------|---|
|                                    | 9. Fionda, C. <i>et al.</i> (2015) Nitric oxide donors increase PVR/CD155 DNAM-1 ligand expression in multiple myeloma cells: role of DNA damage response activation. <u>BMC</u><br>Cancer. 15 (1): 17.   |
|                                    | <ul> <li>10. Molfetta, R. <i>et al.</i> (2019) The Ubiquitin-proteasome pathway regulates Nectin2/CD112 expression and impairs NK cell recognition and killing. <u>Eur J Immunol. 49 (6): 873-83.</u></li> <li>11. Vulpis, E. <i>et al.</i> (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. 11 (1): e12176.</u></li> <li>12. Molfetta, R. <i>et al.</i> (2020) CD155: A Multi-Functional Molecule in Tumor Progression. Int J Mol Sci. 21 (3): 922.</li> <li>13. Zitti, B. <i>et al.</i> (2017) Innate immune activating ligand SUMOylation affects tumor cell recognition by NK cells. <u>Sci Rep. 7 (1): 10445.</u></li> <li>14. Mekhloufi, A. <i>et al.</i> (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.</li> </ul> |
| Storage                            | 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 despatch   |
| Health And Safety<br>Information   | Material Safety Datasheet documentation #20487 available at:<br>https://www.bio-rad-antibodies.com/SDS/MCA2257PE<br>20487   |
| Regulatory                         | For research purposes only  |
| Related Produce<br>Recommended Not |   |

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

## **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

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

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody\_sales\_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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