

## Datasheet: MCA2257XZ

<b>Description:</b>	MOUSE ANTI HUMAN CD226:Preservative Free
<b>Specificity:</b>	CD226
<b>Other names:</b>	DNAM-1
<b>Format:</b>	Preservative Free
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	DX11
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Human cytotoxic T lymphocyte clone
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q15762</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">10666</a>    CD226    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	DNAM1
<b>RRID</b>	AB_324893
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mouse were fused with cells of the Sp2/0 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Human CD226 antibody, clone DX11</b> 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.</p> <p>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 (<a href="#">Kojima et al. 2003</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 1 x 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>Shibuya, A. <i>et al.</i> (1996) DNAM-1, a novel adhesion molecule involved in the cytolytic function of T lymphocytes. <a href="#">Immunity. 4 (6): 573-81.</a></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. <a href="#">J Immunol. 161 (4): 1671-6.</a></li> <li>Kojima, H. <i>et al.</i> (2003) CD226 mediates platelet and megakaryocytic cell adhesion to vascular endothelial cells. <a href="#">J Biol Chem. 278 (38): 36748-53.</a></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. <a href="#">J Immunol. 186: 1763-8.</a></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. <a href="#">Blood. 117: 4778-86.</a></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. <a href="#">Blood. 113: 3503-11.</a></li> </ol>

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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. [J Extracell Vesicles. 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. [Sci Rep. 7 \(1\): 10445.](#)
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. [Cancers \(Basel\). 12 \(2\): 440.](#)

<b>Storage</b>	<p>Store at -20°C only.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10162 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2257XZ">https://www.bio-rad-antibodies.com/SDS/MCA2257XZ</a></p> <p>10162</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>

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 \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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](https://bio-rad-antibodies.com/datasheets)

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