

## Datasheet: MCA2726T

<b>Description:</b>	MOUSE ANTI HUMAN CD44
<b>Specificity:</b>	CD44
<b>Other names:</b>	H-CAM, PGP-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	156-3C11
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 µg

## 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 - 1/100
Immunohistology - Frozen	▪			1/100
Immunohistology - Paraffin (1)	▪			1/100
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.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Baboon, African green monkey , Cat <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	Stimulated human leucocytes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P16070</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">960</a>   CD44   <a href="#">Related reagents</a></p>
<b>Synonyms</b>	LHR, MDU2, MDU3, MIC4
<b>RRID</b>	AB_2260221
<b>Specificity</b>	<p><b>Mouse anti Human CD44 antibody, clone 156-3C11</b> recognizes human Phagocytic glycoprotein 1 also known as CD44, HCAM or CD44s. CD44 is a ~90 kDa single pass type I transmembrane glycoprotein. Various isoforms of CD44 exist due to differential expression of exon products from the membrane proximal region of the extracellular domain. Mouse anti Human CD44 antibody, clone 156-3C11 recognizes the ~90 kDa standard form lacking any of the alternative spliced products, the clone is expected to recognize all isoforms of CD44. CD44 is expressed on leucocytes, erythrocytes, white matter of the brain and some epithelial cells of the breast and small intestine. Antibodies produced by clone 156-3C11 recognise epitope 3, defined as a protease resistant epitope on the CD44 molecule (CD44 and CD45R Cluster report. In Leucocyte Typing V. White cell differentiation antigens. Eds Schlossman, S.F. <i>et al</i>).</p> <p>CD44 is a receptor for hyaluronic acid (HA) and is involved in cell-cell interactions, cell adhesion and migration (<a href="#">Lesley <i>et al.</i> 1990</a>). CD44 also participates in a wide variety of cellular functions including lymphocyte activation, recirculation and homing (<a href="#">Shimizu <i>et al.</i> 1989</a>). CD44 expression may be up-regulated upon some carcinomas, and it has been speculated that this may be related to metastatic potential (<a href="#">East and Hart 1993</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
<b>Histology Positive Control Tissue</b>	Human tonsil.
<b>Western Blotting</b>	MCA2726 detects a band of approximately 80kDa in HeLa cell lysates.
<b>References</b>	<ol style="list-style-type: none"> <li>Denning, S.M. <i>et al.</i> (1995) CD44 and CD45R Cluster report. In Leucocyte Typing V. White cell differentiation antigens. Eds Schlossman, S.F. <i>et al.</i> Oxford University Press. Volume 2,AS10:1713 – 1719</li> <li>Olsson, E. <i>et al.</i> (2011) CD44 isoforms are heterogeneously expressed in breast cancer and correlate with tumor subtypes and cancer stem cell markers. <a href="#">BMC Cancer. 11: 418.</a></li> <li>Alves, C.S. <i>et al.</i> (2009) Biomolecular characterization of CD44-fibrin(ogen) binding: distinct molecular requirements mediate binding of standard and variant isoforms of CD44 to immobilized fibrin(ogen). <a href="#">J Biol Chem. 284: 1177-89.</a></li> <li>Heidemann, F. <i>et al.</i> (2014) Selectins mediate small cell lung cancer systemic metastasis. <a href="#">PLoS One. 9(4):e92327.</a></li> <li>Zhang, D. <i>et al.</i> (2015) Screening and Identification of a Phage Display Derived Peptide That Specifically Binds to the CD44 Protein Region Encoded by Variable Exons. <a href="#">J Biomol Screen. pii: 1087057115608604.</a></li> </ol>

6. Zhang, P. *et al.* (2014) CD44 variant, but not standard CD44 isoforms, mediate disassembly of endothelial VE-cadherin junction on metastatic melanoma cells. [FEBS Lett. 588 \(24\): 4573-82.](#)
7. Pinto, F. *et al.* (2014) T-box transcription factor brachyury is associated with prostate cancer progression and aggressiveness. [Clin Cancer Res. 20 \(18\): 4949-61.](#)
8. Afonso, J. *et al.* (2015) CD147 and MCT1-potential partners in bladder cancer aggressiveness and cisplatin resistance. [Mol Carcinog. 54 \(11\): 1451-66.](#)
9. Lawson, J.S. *et al.* (2018) Characterisation of feline renal cortical fibroblast cultures and their transcriptional response to transforming growth factor  $\beta$ 1. [BMC Vet Res. 14 \(1\): 76.](#)
10. Lawson, J.S. *et al.* (2019) Characterisation of Crandell-Rees Feline Kidney (CRFK) cells as mesenchymal in phenotype. [Res Vet Sci. 127: 99-102.](#)

<b>Storage</b>	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.
<b>Guarantee</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
<b>Regulatory</b>	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](#)
- Human Anti Mouse IgG2a (HCA037...) [FITC](#), [HRP](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#), [DyLight®800](#), [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

### Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000A\)](#)

<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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