

Datasheet: MCA2726

Description:	MOUSE ANTI HUMAN CD44
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	156-3C11
Isotype:	IgG2a
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	■			1/50 - 1/100
Immunohistology - Frozen	■			1/100
Immunohistology - Paraffin (1)	■			1/100
ELISA			■	
Immunoprecipitation	■			
Western Blotting	■			
Immunofluorescence	■			

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.

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

Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Stimulated human leucocytes.
External Database Links	UniProt: P16070 Related reagents Entrez Gene: 960 CD44 Related reagents
Synonyms	LHR, MDU2, MDU3, MIC4
Specificity	Mouse anti Human CD44 antibody, clone 156-3C11 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 form 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>). CD44 is a receptor for hyaluronic acid (HA) and is involved in cell-cell interactions, cell adhesion and migration (Lesley <i>et al.</i> 1990). CD44 also participates in a wide variety of cellular functions including lymphocyte activation, recirculation and homing (Shimizu <i>et al.</i> 1989). CD44 expression may be up-regulated upon some carcinomas, and it has been speculated that this may be related to metastatic potential (East and Hart 1993).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
Histology Positive Control Tissue	Human tonsil.
Western Blotting	MCA2726 detects a band of approximately 80kDa in HeLa cell lysates.
References	- 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 - 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. BMC Cancer. 11: 418. - 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). J Biol Chem. 284: 1177-89. - Heidemann, F. <i>et al.</i> (2014) Selectins mediate small cell lung cancer systemic metastasis. PLoS One. 9(4):e92327. - 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. J Biomol Screen. pii: 1087057115608604. - Zhang, P. <i>et al.</i> (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 β 1. [BMC Vet Res. 14 \(1\): 76.](#)

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.
Shelf Life	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 (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Human Anti Mouse IgG2a (HCA037...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP

Recommended Negative Controls

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

Recommended Useful Reagents

[HISTAR DETECTION SYSTEM \(STAR3000A\)](#)
[HISTAR DETECTION SYSTEM \(STAR3000B\)](#)
[HISTAR DETECTION SYSTEM \(STAR3000C\)](#)

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