

Datasheet: MCA1982T

Description:	MOUSE ANTI HUMAN CD239
Specificity:	CD239
Other names:	B-CAM
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	BRIC221
Isotype:	IgG2b
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			
Immunohistology - Frozen	■			
Immunohistology - Paraffin			■	
ELISA	■			
Immunoprecipitation			■	
Western Blotting (1)	■			
Immunofluorescence	■			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1) **Non-reducing conditions required**

Target Species	Human
Species Cross Reactivity	Reacts with: Pig 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 from tissue culture supernatant
Buffer Solution	TRIS buffered glycine
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen	Human erythrocytes.
External Database Links	UniProt: P50895 Related reagents Entrez Gene: 4059 BCAM Related reagents
Synonyms	LU, MSK19
Specificity	Mouse anti Human CD239 antibody, clone BRIC221 recognizes human CD239, also known as Lutheran antigen or basal cell adhesion molecule. CD239 is a 597 amino acid, ~85 kDa single pass type I membrane glycoprotein. Clone BRIC221 recognizes a monomorphic determinant expressed on both the 85 and 78 kDa Lutheran (Lu) glycoforms (El Nemer et al. 1998). BRIC 221 recognizes an epitope in the fourth extracellular domain of Lu glycoprotein (Parsons et al. 1997). Lutheran glycoprotein is a member of the immunoglobulin superfamily and was designated CD239 (B-CAM) at the 7th leucocyte typing workshop. CD239 is expressed by erythrocytes in the peripheral blood.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	1. Parsons, S.F. <i>et al.</i> (1997) Use of domain-deletion mutants to locate Lutheran blood group antigens to each of the five immunoglobulin superfamily domains of the Lutheran glycoprotein: elucidation of the molecular basis of the Lu(a)/Lu(b) and the Au(a)/Au(b) polymorphisms. Blood. 89 (11): 4219-25. 2. Sakai, E. <i>et al.</i> (2007) Construction of recombinant hemagglutinin derived from the gingipain-encoding gene of <i>Porphyromonas gingivalis</i>, identification of its target protein on erythrocytes, and inhibition of hemagglutination by an interdomain regional peptide. J Bacteriol. 189: 3977-86. 3. Bruce, L.J. <i>et al.</i> (2003) A band 3-based macrocomplex of integral and peripheral proteins in the RBC membrane. Blood. 101: 4180-8. 4. Kjellgren, D. <i>et al.</i> (2004) Laminin isoforms in human extraocular muscles. Invest Ophthalmol Vis Sci. 45: 4233-9. 5. Vainionpää, N. <i>et al.</i> (2006) Laminin-10 and Lutheran blood group glycoproteins in adhesion of human endothelial cells. Am J Physiol Cell Physiol. 290: C764-75. 6. Chen, J. <i>et al.</i> (2009) Expression of laminin isoforms, receptors, and binding proteins unique to nucleus pulposus cells of immature intervertebral disc. Connect Tissue Res. 50: 294-306. 7. Määttä, M. <i>et al.</i> (2005) Differential expression of laminin isoforms in ovarian epithelial carcinomas suggesting different origin and providing tools for differential diagnosis. J Histochem Cytochem. 53: 1293-300. 8. Virtanen, I. <i>et al.</i> (2003) Laminin isoforms in fetal and adult human adrenal cortex. J Clin Endocrinol Metab. 88: 4960-6. 9. Kikkawa, Y. <i>et al.</i> (2011) An antibody to the Lutheran glycoprotein (Lu) recognizing the LU4 blood type variant inhibits cell adhesion to laminin α5. PLoS One. 6: e23329. 10. Takkunen, M. <i>et al.</i> (2008) Epithelial-mesenchymal transition downregulates laminin alpha5 chain and upregulates laminin alpha4 chain in oral squamous carcinoma cells. Histochem Cell Biol. 130: 509-25. 11. Hasenson, S. <i>et al.</i> (2005) The immortalized human corneal epithelial cells adhere to laminin-10 by using Lutheran glycoproteins and integrin alpha3beta1. Exp Eye Res. 81: 415-21. 12. Liu, J.X. <i>et al.</i> (2011) Different impact of ALS on laminin isoforms in human extraocular muscles versus limb muscles. Invest Ophthalmol Vis Sci. 52: 4842-52. 13. Vuoristo, S. <i>et al.</i> (2009) Laminin isoforms in human embryonic stem cells: synthesis, receptor usage and growth support. J Cell Mol Med. 13: 2622-33. 14. Kikkawa, Y. <i>et al.</i> (2016) Down-regulation of cell adhesion via rho-associated protein kinase

(ROCK) pathway promotes tumor cell migration on laminin-511 [Experimental Cell Research. Apr 8 \[Epub ahead of print\]](#)

15. Vainionpää N *et al.* (2007) Basement membrane protein distribution in LYVE-1-immunoreactive lymphatic vessels of normal tissues and ovarian carcinomas. [Cell Tissue Res. 328 \(2\): 317-28.](#)

16. Kikkawa Y *et al.* (2014) Soluble Lutheran/basal cell adhesion molecule is detectable in plasma of hepatocellular carcinoma patients and modulates cellular interaction with laminin-511 *in vitro*. [Exp Cell Res. 328 \(1\): 197-206.](#)

17. Kikkawa, Y. *et al.* (2008) Laminin alpha 5 mediates ectopic adhesion of hepatocellular carcinoma through integrins and/or Lutheran/basal cell adhesion molecule. [Exp Cell Res. 314 \(14\): 2579-90.](#)

18. Kikkawa, Y. *et al.* (2007) The LG1-3 tandem of laminin alpha5 harbors the binding sites of Lutheran/basal cell adhesion molecule and alpha3beta1/alpha6beta1 integrins. [J Biol Chem. 282 \(20\): 14853-60.](#)

19. Kikkawa, Y. *et al.* (2013) The lutheran/basal cell adhesion molecule promotes tumor cell migration by modulating integrin-mediated cell attachment to laminin-511 protein. [J Biol Chem. 288 \(43\): 30990-1001.](#)

20. Enomoto-Okawa, Y. *et al.* (2017) An Anti-Human Lutheran Glycoprotein Phage Antibody Inhibits Cell Migration on Laminin-511: Epitope Mapping of the Antibody. [PLoS One. 12 \(1\): e0167860.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

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.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10072 available at:
10072: <https://www.bio-rad-antibodies.com/uploads/MSDS/10072.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
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG2b (HCA038...)	FITC , 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 IgG2b NEGATIVE CONTROL (MCA691)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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