

Datasheet: MCA2882Z

Description:	MOUSE ANTI HUMAN CD147:Preservative Free
Specificity:	CD147
Other names:	NEUROTHELIN
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	MEM-M6/6
Isotype:	IgG1
Quantity:	0.1 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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			
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.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	CD147Rg, consisting of the cDNA coding for the extracellular region of CD147 expressed in CHO cells.

**External Database
Links**

UniProt:

[P35613](#) [Related reagents](#)

Entrez Gene:

[682](#) BSG [Related reagents](#)

Fusion Partners

Spleen cells from immunised Balb/c mice were fused with cells of the Sp2/0 myeloma cell line.

Specificity

Mouse anti Human CD147 antibody, clone MEM-M6/6 recognizes the Ig-like V-type domain of human CD147, otherwise known as basigin, neurothelin or extracellular matrix metalloproteinase inducer (EMMPRIN). CD147 is a 364 amino acid, ~50-55 kDa single pass type I transmembrane glycoprotein and member of the immunoglobulin gene superfamily, containing a single Ig-like C2-type and a single Ig-like V-type domain. CD147 is broadly expressed on peripheral blood cells, endothelial cells, and increased on T cells following activation. CD147 is also strongly expressed on small lung cancer cells and hepatocellular carcinoma.

Biological properties of CD147 include the regulation of T cells, integrin functions and cell adhesion, the stimulation of metalloproteinase (MMP) production by fibroblasts, the promotion of astrocyte outgrowths, and roles in tumour progression, neuronal system function and reproduction ([Muramatsu et al. 2003](#)).

There are four distinct isoforms of CD147 described in UniProt entry [P35613](#) resulting from alternative splicing or differing promotor usage, the canonical version described here and three alternative truncated isoforms with alterations and deletions to the N-terminal region. The epitope recognized by mouse anti human CD147, clone MEM-M6/6 lies C-terminally to the altered sequences in these isoforms and clone MEM-M6/6 would therefore be expected to bind to all described forms of human CD147.

Mouse anti Human CD147, clone MEM-M6/6 inhibits anti-CD3-induced T cell activation, dependent upon antibody concentration ([Koch et al. 1999](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.

Western Blotting

MCA2882Z detects a band of approximately 45-60kDa in 293 human fibroblastoid cell lysates under non-reducing conditions.

References

1. Koch, C. et al. (1999) T cell activation-associated epitopes of CD147 in regulation of the T cell response, and their definition by antibody affinity and antigen density. [Int Immunol. 11 \(5\): 777-86.](#)
2. Nassif, X. et al. (2015) Cd147 as receptor for pilus-mediated adhesion of meningococci to vascular endothelia. [Patent Publication number US20150110806 A1](#)
3. Bernard SC et al. (2014) Pathogenic *Neisseria meningitidis* utilizes CD147 for vascular colonization. [Nat Med. 20 \(7\): 725-31.](#)
4. Douglas, A.D. et al. (2014) Neutralization of *Plasmodium falciparum* merozoites by antibodies against PfRH5. [J Immunol. 192 \(1\): 245-58.](#)
5. Crosnier C et al. (2011) Basigin is a receptor essential for erythrocyte invasion by *Plasmodium falciparum*. [Nature. 480 \(7378\): 534-7.](#)
6. Wanaguru M et al. (2013) RH5-Basigin interaction plays a major role in the host tropism of *Plasmodium falciparum*. [Proc Natl Acad Sci U S A. 110 \(51\): 20735-40.](#)
7. Zenonos, Z.A. et al. (2015) Basigin is a druggable target for host-oriented antimalarial interventions. [J Exp Med. 212 \(8\): 1145-51.](#)
8. Hahn, J.N. et al. (2015) The role of EMMPRIN in T cell biology and immunological diseases. [J Leukoc Biol. 98 \(1\): 33-48.](#)

Storage	Store at -20°C only. 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 #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.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 IgG1 (HCA036...)	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 IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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