

Datasheet: MCA2882Z

BATCH NUMBER 158390

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	None present

Stabilisers

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](#)

RRID AB_2066685

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 1×10^6 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.](#)
9. Jongruamklang, P. *et al.* (2018) Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry analysis of 36 blood group alleles among 396 Thai samples reveals region-specific variants. [Transfusion. 58 \(7\): 1752-62.](#)

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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10162 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA2882Z>
10162

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South Tel: +1 800 265 7376

America 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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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