

Datasheet: MCA2882Z

**BATCH NUMBER 154196**

<b>Description:</b>	MOUSE ANTI HUMAN CD147:Preservative Free
<b>Specificity:</b>	CD147
<b>Other names:</b>	NEUROTHELIN
<b>Format:</b>	Preservative Free
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEM-M6/6
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	None present

## Stabilisers

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**Approx. Protein Concentrations** IgG concentration 1.0mg/ml

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**Immunogen** CD147Rg, consisting of the cDNA coding for the extracellular region of CD147 expressed in CHO cells.

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## External Database Links

**UniProt:**  
[P35613](#)   [Related reagents](#)

**Entrez Gene:**  
[682](#)   BSG   [Related reagents](#)

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**RRID** AB\_2066685

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

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**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](#)).

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**Flow Cytometry** Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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

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## 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.](#)

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### 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.

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### Guarantee

12 months from date of despatch

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### Health And Safety Information

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

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

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](mailto:antibody_sales_us@bio-rad.com)

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

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