

Datasheet: MCA1876PET

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|----------------------|----------------------------|
| Description: | MOUSE ANTI HUMAN CD147:RPE |
| Specificity: | CD147 |
| Other names: | NEUROTHELIN |
| Format: | RPE |
| Product Type: | Monoclonal Antibody |
| Clone: | MEM-M6/1 |
| Isotype: | IgG1 |
| Quantity: | 25 TESTS |

Product Details

RRID AB_1100800

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 | ▪ | | | Neat |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species Human

Product Form Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution Reconstitute in 0.25 ml distilled water

| Max Ex/Em | Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|-----------|-----------------|---------------------|-------------------|
| | RPE 488nm laser | 496 | 578 |

Preparation Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide

Stabilisers 1% Bovine Serum Albumin
5% Sucrose

Immunogen CD147Rg, consisting of the cDNA coding for the extracellular region of human CD147.

External Database **UniProt:**

Links

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

Entrez Gene:

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

Fusion Partners

Spleen cells from immunized Balb/c mice were fused with SP2/0 mouse myeloma cells.

Specificity

Mouse anti Human CD147 antibody, clone MEM-M6/1 recognizes the human CD147 cell surface antigen, also known as Basigin, EMMPRIN and collagenase stimulatory factor. CD147 is a 385 amino acid single pass type 1 trans-membrane glycoprotein bearing 3 potential N-glycosylation sites, a single N-terminal (distal) [Ig-like C2-type domain](#) and a more proximal [Ig-like V-type domain](#) in its extracellular region. Mouse anti Human CD147 antibody, clone MEM-M6/1 was raised and screened against recombinant extracellular region of huCD147 expressed in CHO cells, along with a number of other MEM-M6 clones. Epitope mapping indicates that clone MEM-M6/1 binds to an epitope within the distal Ig-like C-2 type domain. This is confirmed by flow cytometric studies using beads coated with constructs containing only the distal Ig-like or proximal Ig-like domains ([Koch et al. 1999](#)).

Mouse anti Human CD147 antibody, clone MEM-M6/1 binds to both un-stimulated and phytohemagglutinin (PHA) stimulated (activated) T lymphocytes with levels of CD147 enhanced following PHA stimulation. CD147 is also expressed by peripheral blood and endothelial cells as well as many cultured cells of hematopoietic and non-hematopoietic origin ([Koch et al. 1999](#)). In addition to clone MEM-M6/1 we are also able to offer the [MEM-M6/6 clone](#) derived from the same fusion which recognizes an epitope in the membrane proximal Ig-like V type domain and has inhibitory effects on CD3 induced T cell activation.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells or 100ul whole blood.

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. Yang, Y. *et al.* (2008) Cyclophilin A up-regulates MMP-9 expression and adhesion of monocytes/macrophages via CD147 signalling pathway in rheumatoid arthritis. [Rheumatology \(Oxford\). 47: 1299-310.](#)
3. Schneiderhan, W. *et al.* (2007) Pancreatic stellate cells are an important source of MMP-2 in human pancreatic cancer and accelerate tumor progression in a murine xenograft model and CAM assay. [J Cell Sci. 120: 512-9.](#)
4. Chen, Y. *et al.* (2009) Upregulation of HAB18G/CD147 in activated human umbilical vein endothelial cells enhances the angiogenesis. [Cancer Lett. 278: 113-21.](#)
5. Schneiderhan, W. *et al.* (2009) CD147 silencing inhibits lactate transport and reduces malignant potential of pancreatic cancer cells in in vivo and in vitro models [Gut. 58: 1391-8.](#)
6. Wright, G.J. *et al.* (2014) Immunogenic compositions and expression systems. [Patent Publication number. US20140093540 A1](#)
7. Huang, Z. *et al.* (2013) Overexpression of CD147 contributes to the chemoresistance of head and neck squamous cell carcinoma cells. [J Oral Pathol Med. 42: 541-6.](#)
8. Hu, J. *et al.* (2010) Involvement of HAB18G/CD147 in T cell activation and immunological synapse formation. [J Cell Mol Med. 14 \(8\): 2132-43.](#)
9. Bernard, S.C. *et al.* (2014) Pathogenic *Neisseria meningitidis* utilizes CD147 for vascular colonization. [Nat Med. 20 \(7\): 725-31.](#)
10. Nassif, X. *et al.* (2015) Cd147 as receptor for pilus-mediated adhesion of meningococci to vascular endothelia. [Patent Publication number US20150110806 A1](#)
11. Trakarnsanga, K. *et al.* (2017) An immortalized adult human erythroid line facilitates sustainable and scalable generation of functional red cells. [Nat Commun. 8: 14750.](#)

Storage Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of reconstitution.

Health And Safety Information Material Safety Datasheet documentation #10075 available at:
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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