

Datasheet: MCA1876

BATCH NUMBER 151882

Description:	MOUSE ANTI HUMAN CD147
Specificity:	CD147
Other names:	NEUROTHELIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-M6/1
Isotype:	IgG1
Quantity:	0.2 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	▪			1/50 - 1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting (1)	▪			

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.

(1)MEM-M6/1 recognizes CD147 under non-reducing conditions.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by Protein A affinity chromatography.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Approx. Protein Concentrations	IgG concentration 1 mg/ml
Immunogen	CD147Rg, consisting of the cDNA coding for the extracellular region of human CD147.
External Database Links	<p>UniProt: P35613 Related reagents</p> <p>Entrez Gene: 682 BSG Related reagents</p>
RRID	AB_322225
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with SP2/0 mouse myeloma cells.
Specificity	<p>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).</p> <p>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 (Kock et al. 1999)</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood.
References	<ol style="list-style-type: none"> 1. Koch, C. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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

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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1876>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

- | | |
|---|---|
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | Alk. Phos. , HRP |
| Goat Anti Mouse IgG (STAR76...) | RPE |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Goat Anti Mouse IgG (H/L) (STAR117...) | Alk. Phos. , DyLight@488 , DyLight@550 ,
DyLight@650 , DyLight@680 , DyLight@800 ,
FITC , HRP |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC , HRP |
| Goat Anti Mouse IgG (STAR77...) | HRP |

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

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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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

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