

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>
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Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	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
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP

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

Recommended Negative Controls

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

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'M365844:200529'

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