

Datasheet: MCA2113T

BATCH NUMBER 169579

| | |
|----------------------|----------------------------|
| Description: | MOUSE ANTI HUMAN CD46 |
| Specificity: | CD46 |
| Other names: | MEMBRANE CO-FACTOR PROTEIN |
| Format: | Purified |
| Product Type: | Monoclonal Antibody |
| Clone: | MEM-258 |
| Isotype: | IgG1 |
| Quantity: | 25 µg |

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 | ▪ | | | 1/10 - 1/50 |
| Immunohistology - Frozen | | | ▪ | |
| Immunohistology - Paraffin | | | ▪ | |
| ELISA | | | ▪ | |
| Immunoprecipitation | ▪ | | | |
| Western Blotting | ▪ | | | Non reducing conditions |
| Immunofluorescence | ▪ | | | |

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 | 0.09% sodium azide (NaN ₃) |

Stabilisers

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen HPB-ALL cell line.

External Database Links

UniProt:
[P15529](#) [Related reagents](#)

Entrez Gene:
[4179](#) CD46 [Related reagents](#)

Synonyms MCP, MIC10

RRID AB_1102094

Specificity **Mouse anti Human CD46 antibody, clone MEM-258** recognizes the human CD46 cell surface antigen, also known as membrane co-factor protein (MCP), Trophoblast leukocyte common antigen or TLX. CD46 is a 392 amino acid (including a 34 aa signal peptide) ~43-60 kDa single pass type 1 trans-membrane glycoprotein expressed by all cell types with the exception of erythrocytes.

CD46 functions as a receptor for complement and inhibitor of complement activation, limiting the formation and activity of C3 convertases. CD46 is expressed by all nucleated cells, often as multiple isoforms ([Seya et al. 1993](#)) on the same cells. The molecule is also expressed by sperm and may be important in the process of fertilisation ([Carver-Ward et al. 1996](#)). CD46 is reported to function as a receptor for adenovirus in a range of human cells and cell lines ([Wu et al. 2024](#)).

Flow Cytometry Use 10µl of the suggested working dilution to label 10⁶ or 100µl whole blood

References

1. Sirena D *et al.* (2004) The human membrane cofactor CD46 is a receptor for species B adenovirus serotype 3. [J Virol. 78 \(9\): 4454-62.](#)
2. Fremeaux-Bacchi, V. *et al.* (2006) Genetic and functional analyses of membrane cofactor protein (CD46) mutations in atypical hemolytic uremic syndrome. [J Am Soc Nephrol. 17 \(7\): 2017-25.](#)
3. Fleischli, C. *et al.* (2005) The distal short consensus repeats 1 and 2 of the membrane cofactor protein CD46 and their distance from the cell membrane determine productive entry of species B adenovirus serotype 35. [J Virol. 79:10013-22.](#)
4. Sweigard, J.H. *et al.* (2010) Adenovirus vectors targeting distinct cell types in the retina. [Invest Ophthalmol Vis Sci. 51:2219-28.](#)
5. Yang, P. *et al.* (2009) Expression and modulation of RPE cell membrane complement regulatory proteins. [Invest Ophthalmol Vis Sci. 50: 3473-81.](#)
6. Bahat, A. and Eisenbach, M. (2010) Human sperm thermotaxis is mediated by phospholipase C and inositol trisphosphate receptor Ca²⁺ channel. [Biol Reprod. 82:](#)

[606-16.](#)

7. Bienaime, F. *et al.* (2010) Mutations in components of complement influence the outcome of Factor I-associated atypical hemolytic uremic syndrome. [Kidney Int. 77: 339-49.](#)
8. Wang, H. *et al.* (2008) *In vitro* and *in vivo* properties of adenovirus vectors with increased affinity to CD46. [J Virol. 82: 10567-79.](#)
9. Hara, H. *et al.* (2011) Initial *in vitro* investigation of the human immune response to corneal cells from genetically engineered pigs. [Invest Ophthalmol Vis Sci. 52: 5278-86.](#)
10. El Karoui, K. *et al.* (2012) A clinicopathologic study of thrombotic microangiopathy in IgA nephropathy. [J Am Soc Nephrol. 23 \(1\): 137-48.](#)
11. Bach, P. *et al.* (2013) Specific elimination of CD133+ tumor cells with targeted oncolytic measles virus. [Cancer Res. 73 \(2\): 865-74.](#)
12. Leaderer, D. *et al.* (2015) Adeno-associated virus mediated delivery of an engineered protein that combines the complement inhibitory properties of CD46, CD55 and CD59. [J Gene Med. 17 \(6-7\): 101-15.](#)
13. Tuve, S. *et al.* (2006) A new group B adenovirus receptor is expressed at high levels on human stem and tumor cells. [J Virol. 80 \(24\): 12109-20.](#)
14. Hara, H. *et al.* (2008) *In vitro* investigation of pig cells for resistance to human antibody-mediated rejection. [Transpl Int. 21 \(12\): 1163-74.](#)
15. Loré, K. *et al.* (2007) Myeloid and plasmacytoid dendritic cells are susceptible to recombinant adenovirus vectors and stimulate polyfunctional memory T cell responses. [J Immunol. 179 \(3\): 1721-9.](#)
16. Fremeaux-Bacchi, V. *et al.* (2007) Unusual clinical severity of complement membrane cofactor protein-associated hemolytic-uremic syndrome and uniparental isodisomy. [Am J Kidney Dis. 49 \(2\): 323-9.](#)
17. Le Quintrec, M. *et al.* (2008) Complement mutation-associated *de novo* thrombotic microangiopathy following kidney transplantation. [Am J Transplant. 8 \(8\): 1694-701.](#)
18. Boyer, O. *et al.* (2008) Complement factor H deficiency and posttransplantation glomerulonephritis with isolated C3 deposits. [Am J Kidney Dis. 51 \(4\): 671-7.](#)
19. Wang, H. *et al.* (2009) Receptor usage of a newly emergent adenovirus type 14. [Virology. 387 \(2\): 436-41.](#)
20. Iguchi, K. *et al.* (2012) Efficient antitumor effects of carrier cells loaded with a fiber-substituted conditionally replicating adenovirus on CAR-negative tumor cells. [Cancer Gene Ther. 19 \(2\): 118-25.](#)
21. Kälén, S. *et al.* (2010) Macropinocytotic uptake and infection of human epithelial cells with species B2 adenovirus type 35. [J Virol. 84 \(10\): 5336-50.](#)
22. Bottino, R. *et al.* (2014) Pig-to-monkey islet xenotransplantation using multi-transgenic pigs. [Am J Transplant. 14 \(10\): 2275-87.](#)
23. White, K.M. *et al.* (2013) Assessment of a novel, capsid-modified adenovirus with an improved vascular gene transfer profile. [J Cardiothorac Surg. 8: 183.](#)
24. Tuve, S. *et al.* (2008) Role of cellular heparan sulfate proteoglycans in infection of human adenovirus serotype 3 and 35. [PLoS Pathog. 4 \(10\): e1000189.](#)
25. Iwase, H. *et al.* (2014) Regulation of human platelet aggregation by genetically modified pig endothelial cells and thrombin inhibition. [Xenotransplantation. 21 \(1\): 72-83.](#)
26. Sweigard, J.H. *et al.* (2011) Adenovirus-mediated delivery of CD46 attenuates the alternative complement pathway on RPE: implications for age-related macular degeneration. [Gene Ther. 18 \(6\): 613-21.](#)

27. Feng, Y. *et al.* (2020) Human Desmoglein-2 and Human CD46 Mediate Human Adenovirus Type 55 Infection, but Human Desmoglein-2 Plays the Major Roles. [J Virol. 94 \(17\): e00747-20.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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/MCA2113T>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M412901:221117'

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