



1F-342-T100

## Monoclonal Antibody to CD46 Fluorescein (FITC) conjugated (100 tests)

<b>Clone:</b>	MEM-258
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	The antibody MEM-258 recognizes an epitope on SCR4 (the membrane-proximal SCR) domain of CD46 (Membrane cofactor protein). CD46 is 56-66 kDa dimeric transmembrane protein expressed on T and B lymphocytes, platelets, monocytes, granulocytes, endothelial cells, epithelial cells and fibroblast; it is negative on erythrocytes.
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	HPB-ALL human T cell line
<b>Species Reactivity:</b>	Human, Bovine
<b>Preparation:</b>	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD46 (MCP, membrane cofactor protein) is a multifunctional cell surface transmembrane protein that binds and inactivates C3b and C4b complement fragments, regulates T cell-induced inflammatory responses by either inhibiting (CD46-1 isoform) or increasing (CD46-2 isoform) the contact hypersensitivity reaction. CD46 also serves as a receptor for several human pathogens (both bacteria and viruses), and its ligation alters T lymphocyte polarization toward antigen-presenting cells or target cells, inhibiting lymphocyte function. CD46 is a protector of placental tissue and is also expressed on the inner acrosomal membrane of spermatozoa.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****References:**

- \*Okada N, Liszewski MK, Atkinson JP, Caparon M: Membrane cofactor protein (CD46) is a keratinocyte receptor for the M protein of the group A streptococcus. *Proc Natl Acad Sci U S A.* 1995 Mar 28;92(7):2489-93.
- \*Marie JC, Astier AL, Rivallier P, Rabourdin-Combe C, Wild TF, Horvat B: Linking innate and acquired immunity: divergent role of CD46 cytoplasmic domains in T cell induced inflammation. *Nat Immunol.* 2002 Jul;3(7):659-66.
- \*Gaggar A, Shayakhmetov DM, Lieber A: CD46 is a cellular receptor for group B adenoviruses. *Nat Med.* 2003 Nov;9(11):1408-12.
- \*Liszewski MK, Kemper C, Price JD, Atkinson JP: Emerging roles and new functions of CD46. *Springer Semin Immunopathol.* 2005 Nov;27(3):345-58.
- \*Oliaro J, Pasam A, Waterhouse NJ, Browne KA, Ludford-Menting MJ, Trapani JA, Russell SM: Ligation of the cell surface receptor, CD46, alters T cell polarity and response to antigen presentation. *Proc Natl Acad Sci U S A.* 2006 Dec 5;103(49):18685-90.
- \*Fleischli C, Verhaagh S, Havenga M, Sirena D, Schaffner W, Cattaneo R, Greber UF, Hemmi S: 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.* 2005 Aug;79(15):10013-22.
- \*Weyand NJ, Lee SW, Higashi DL, Cawley D, Yoshihara P, So M: Monoclonal antibody detection of CD46 clustering beneath *Neisseria gonorrhoeae* microcolonies. *Infect Immun.* 2006 Apr;74(4):2428-35.
- \*Fremeaux-Bacchi V, Moulton EA, Kavanagh D, Dragon-Durey MA, Blouin J, Caudy A, Arzouk N, Cleper R, Francois M, Guest G, Pourrat J, Seligman R, Fridman WH, Loirat C, Atkinson JP: Genetic and functional analyses of membrane cofactor protein (CD46) mutations in atypical hemolytic uremic syndrome. *J Am Soc Nephrol.* 2006 Jul;17(7):2017-25.
- \*Loré K, Adams WC, Havenga MJ, Precopio ML, Holterman L, Goudsmit J, Koup RA: Myeloid and plasmacytoid dendritic cells are susceptible to recombinant adenovirus vectors and stimulate polyfunctional memory T cell responses. *J Immunol.* 2007 Aug 1;179(3):1721-9.
- \*Fleischli C, Sirena D, Lesage G, Havenga MJ, Cattaneo R, Greber UF, Hemmi S: Species B adenovirus serotypes 3, 7, 11 and 35 share similar binding sites on the membrane cofactor protein CD46 receptor. *J Gen Virol.* 2007 Nov;88(Pt 11):2925-34.
- \*Hoffmann D, Bayer W, Heim A, Potthoff A, Nettelbeck DM, Wildner O: Evaluation of twenty-one human adenovirus types and one infectivity-enhanced adenovirus for the treatment of malignant melanoma. *J Invest Dermatol.* 2008 Apr;128(4):988-98.
- \*Wang H, Tuve S, Erdman DD, Lieber A: Receptor usage of a newly emergent adenovirus type 14. *Virology.* 2009 May 10;387(2):436-41.
- \*Rebetz J, Na M, Su C, Holmqvist B, Edqvist A, Nyberg C, Widegren B, Salford LG, Sjögren HO, Arnberg N, Qian Q, Fan X: Fiber mediated receptor masking in non-infected bystander cells restricts adenovirus cell killing effect but promotes adenovirus host co-existence. *PLoS One.* 2009 Dec 29;4(12):e8484.
- \*Kálin S, Amstutz B, Gastaldelli M, Wolfrum N, Boucke K, Havenga M, DiGennaro F, Liska N, Hemmi S, Greber UF: Macropinocytotic uptake and infection of human epithelial cells with species B2 adenovirus type 35. *J Virol.* 2010 May;84(10):5336-50.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at [www.exbio.cz](http://www.exbio.cz).

**For laboratory research only, not for drug, diagnostic or other use.**

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic  
Tel: +420 261 090 666 | Fax: +420 261 090 660 | [orders@exbio.cz](mailto:orders@exbio.cz) | [www.exbio.cz](http://www.exbio.cz)