



Antibodies

1B-342-C100

Monoclonal Antibody to CD46 Biotin conjugated (0.1 mg)

Clone:	MEM-258
Isotype:	Mouse IgG1
Specificity:	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.
Regulatory Status:	RUO
Immunogen:	HPB-ALL human T cell line
Species Reactivity:	Human, Bovine
Preparation:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Usage:	Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry. Suggested working dilution is 1:1000. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
Expiration:	See vial label
Lot Number:	See vial label
Background:	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.

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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 | www.exbio.cz