

# CD46 Monoclonal Antibody (8E2), PerCP-eFluor™ 710, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PerCP-eFluor™ 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	8E2
Conjugate	PerCP-eFluor™ 710
Excitation/Emission Max	482/708 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573682

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	5 Publications

## Product Specific Information

**Description:** The 8E2 monoclonal antibody reacts with human CD46 (membrane cofactor protein). CD46 is a transmembrane glycoprotein consisting of four regularly expressed isoforms, giving an electrophoretic profile of two heterogeneous protein species of 51-58 kDa ("lower band") and 59-68 kDa ("upper band"). CD46 is expressed on the majority of nucleated cells, and functions as a regulator of complement function by binding complement components C3b and C4b, which serves to protect the host from autologous complement attack. CD46 has been called a "pathogen magnet" as it is known to play a role in the entry of several pathogens including strains of measles virus, human herpes virus type 6, group A streptococci and Neisseria.

Cross-linking TCR on naive human peripheral blood CD4+ T cells together with CD46, rather than CD28, induces more robust proliferation than achieved with stimulation by the costimulatory molecule CD28, as well as other qualitative differences. There is evidence to suggest that stimulation of TCR and CD46 activates natural CD4+CD25+ T regs, which are non-proliferating, but produce high amounts of granzyme A, and kill activated CD4+, CD8+, CD14+ monocytes, immature dendritic cells and mature dendritic cells.

**Applications Reported:** This 8E2 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This 8E2 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.25 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

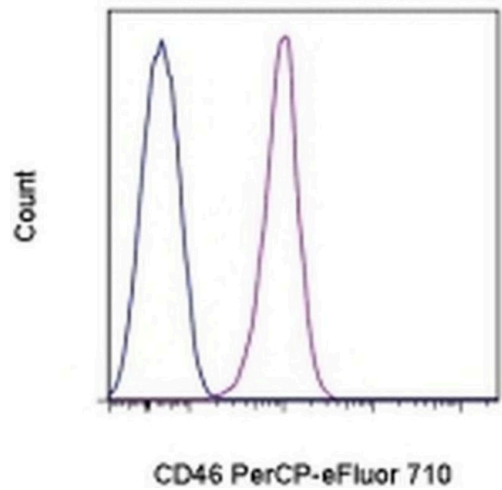
PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

**Product Images For CD46 Monoclonal Antibody (8E2), PerCP-eFluor™ 710, eBioscience™**



**CD46 Antibody (46-0469-42) in Flow**  
Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control PerCP-eFluor® 710 (Product # 46-4714-82) (blue histogram) or Anti-Human CD46 PerCP-eFluor® 710 (purple histogram). Cells in the lymphocyte gate were used for analysis.

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Flow Cytometry (5)

Frontiers in immunology	Year 2023
Inhibition of complement activation by CD55 overexpression in human induced pluripotent stem cell derived kidney organoids.	
"Published figure using CD46 monoclonal antibody (Product # 46-0469-42) in Flow Cytometry"	
Authors: Gaykema LH,van Nieuwland RY,Dekkers MC,van Essen MF,Heidt S,Zaldumbide A,van den Berg CW, Rabelink TJ,van Kooten C	
Cancer gene therapy	Year 2020
In vivo antitumor activity by dual stromal and tumor-targeted oncolytic measles viruses.	Species Human
"46-0469 was used in Flow cytometry/Cell sorting to validate the concept that dual stromal and tumor cell viral targeting enhances the therapeutic effects of systemically administered oncolytic viruses."	
Authors: Jing Y,Chavez V,Khatwani N,Ban Y,Espejo AP,Chen X,Merchan JR	

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