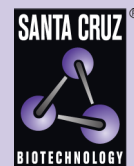


CD46 (C-10): sc-166159



The Power to Question

BACKGROUND

CD46, also called membrane cofactor protein (MCP), is a transmembrane glycoprotein that exists as a non-disulfide-linked dimer. CD46 regulates the complement cascade by inhibiting C3b and C4b deposited on self tissue. CD46 is a cofactor that binds to C3b and C4b, allowing their degradation by a plasma serine protease called Factor I. This function resides in the complement control protein repeats (CCPs), with CCP1-4 essential for regulation. CD46 is widely distributed on thymocytes, T cells, B cells, monocytes, granulocytes, NK cells, platelets, endothelial cells, epithelial cells, fibroblasts, placenta and sperm, but not on erythrocytes. It is the major high affinity receptor for measles virus and human herpes virus. Mouse cells ubiquitously express CRRY, which is a functional ortholog of human decay-accelerating factor (DAF; CD55) and membrane cofactor protein (MCP; CD46).

CHROMOSOMAL LOCATION

Genetic locus: CD46 (human) mapping to 1q32.2.

SOURCE

CD46 (C-10) is a mouse monoclonal antibody raised against amino acids 35-328 of CD46 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD46 (C-10) is available conjugated to agarose (sc-166159 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166159 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166159 PE), fluorescein (sc-166159 FITC), Alexa Fluor® 488 (sc-166159 AF488), Alexa Fluor® 546 (sc-166159 AF546), Alexa Fluor® 594 (sc-166159 AF594) or Alexa Fluor® 647 (sc-166159 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166159 AF680) or Alexa Fluor® 790 (sc-166159 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CD46 (C-10) is recommended for detection of CD46 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD46 siRNA (h): sc-35004, CD46 shRNA Plasmid (h): sc-35004-SH and CD46 shRNA (h) Lentiviral Particles: sc-35004-V.

Molecular Weight of CD46: 56-66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, human prostate extract: sc-363774 or human placenta extract: sc-363772.

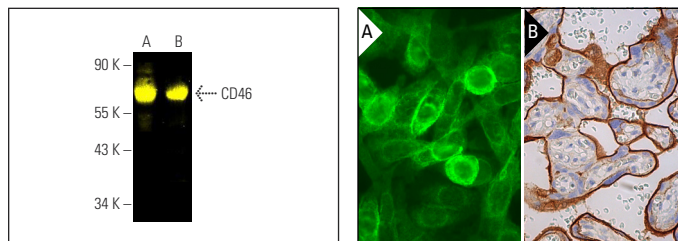
RESEARCH USE

For research use only, not for use in diagnostic procedures.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



CD46 (C-10) Alexa Fluor® 488: sc-166159 AF488. Direct fluorescent western blot analysis of CD46 expression in human placenta (A) and human prostate (B) tissue extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214.

CD46 (C-10) Alexa Fluor® 488: sc-166159 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (A). CD46 (C-10): sc-166159. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of trophoblastic cells (B).

SELECT PRODUCT CITATIONS

- Prusty, B.K., et al. 2014. GP96 interacts with HHV-6 during viral entry and directs it for cellular degradation. *PLoS ONE* 9: e113962.
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- Shang, Y., et al. 2014. Systematic immunohistochemical analysis of the expression of CD46, CD55, and CD59 in colon cancer. *Arch. Pathol. Lab. Med.* 138: 910-919.
- Kuroda, H., et al. 2018. Cluster of differentiation 46 is the major receptor in human blood-brain barrier endothelial cells for uptake of exosomes derived from brain-metastatic melanoma cells (SK-Mel-28). *Mol. Pharm.* 16: 292-304.
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- Cheng, X., et al. 2021. IL-1/IL-1R signaling induced by all-*trans*-retinal contributes to complement alternative pathway activation in retinal pigment epithelium. *J. Cell. Physiol.* 236: 3660-3674.
- Miller, H.W., et al. 2022. Entamoeba histolytica develops resistance to complement deposition and lysis after acquisition of human complement-regulatory proteins through trogocytosis. *mBio* 13: e0316321.
- Çakır Gundogdu, A., et al. 2022. Impact of 5'-AMP-activated protein kinase (AMPK) on epithelial sodium channels (ENaCs) in human sperm. *Tissue Cell* 78: 101896.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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