CD47 (MAIP301): sc-12731

BACKGROUND
CD47 is an integral membrane protein that plays a role in the regulation of cation fluxes across cell membranes. Specifically, CD47 is involved in the increase in intracellular calcium concentration that occurs upon cell adhesion to the extracellular matrix. It is also a receptor for the C-terminal cell binding domain of thrombospondin (SIRP). CD47 is absent from Rh-null erythrocytes, but does play a role in cell adhesion in non-erythroid cells and may prevent premature elimination of erythrocytes. It may also be involved in membrane permeability changes following viral infection. CD47 is expressed on hematopoietic cells, epithelial cells, endothelial cells and fibroblasts and is strongly expressed in brain and mesenchymal cells.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: Cd47 (mouse) mapping to 16 B5.

SOURCE
CD47 (MAIP301) is a rat monoclonal antibody raised against intact CD47 purified from placenta of mouse origin.

PRODUCT
Each vial contains 200 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD47 (MAIP301) is available conjugated to agarose (sc-12731 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to either phycoerythrin (sc-12731 PE), fluorescein (sc-12731 FITC), Alexa Fluor® 488 (sc-12731 AF488), Alexa Fluor® 546 (sc-12731 AF546), Alexa Fluor® 594 (sc-12731 AF594) or Alexa Fluor® 647 (sc-12731 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-12731 AF680) or Alexa Fluor® 790 (sc-12731 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS
CD47 (MAIP301) is recommended for detection of the immunoglobulin domain of CD47 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD47 siRNA (m): sc-35007, CD47 shRNA Plasmid (m): sc-35007-SH and CD47 shRNA (m) Lentiviral Particles: sc-35007-V.

Molecular Weight of CD47: 47-60 kDa.

Positive Controls: BYDP whole cell lysate: sc-364368 or mouse brain extract: sc-2253.

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

DATA
CD47 (MAIP301) Western blot analysis of CD47 expression in mouse brain tissue extract.

SELECT PRODUCT CITATIONS

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

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

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