

## CD81 (1.3.3.22): sc-7637



The Power to Question

## BACKGROUND

CD81, also called TAPA-1, is a type III transmembrane protein that is broadly expressed on cells of hematopoietic, neuroectodermal and mesenchymal origin. CD81 is believed to be involved in both cell growth and signal transduction. CD81 can be present as a multimolecular complex in association with CD37 and/or CD53, or on the surface of B cells in association with CD19, CD21 and/or MHC class II antigens.

## CHROMOSOMAL LOCATION

Genetic locus: CD81 (human) mapping to 11p15.5; Cd81 (mouse) mapping to 7 F5.

## SOURCE

CD81 (1.3.3.22) is a mouse monoclonal antibody raised against human B cell line from Burkitt lymphoma.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD81 (1.3.3.22) is available conjugated to either phycoerythrin (sc-7637 PE), fluorescein (sc-7637 FITC), Alexa Fluor® 488 (sc-7637 AF488), Alexa Fluor® 546 (sc-7637 AF546), Alexa Fluor® 594 (sc-7637 AF594) or Alexa Fluor® 647 (sc-7637 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7637 AF680) or Alexa Fluor® 790 (sc-7637 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, CD81 (1.3.3.22) is available conjugated to Alexa Fluor® 405 (sc-7637 AF405, 200 µg/ml), for IF, IHC(P) and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

CD81 (1.3.3.22) is recommended for detection of CD81 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for CD81 siRNA (h): sc-35030, CD81 siRNA (m): sc-37251, CD81 shRNA Plasmid (h): sc-35030-SH, CD81 shRNA Plasmid (m): sc-37251-SH, CD81 shRNA (h) Lentiviral Particles: sc-35030-V and CD81 shRNA (m) Lentiviral Particles: sc-37251-V.

Molecular Weight of CD81: 22-26 kDa.

Positive Controls: Daudi cell lysate: sc-2415, Raji whole cell lysate: sc-364236 or Ramos cell lysate: sc-2216.

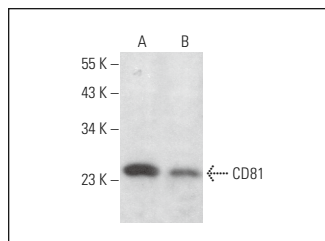
## STORAGE

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

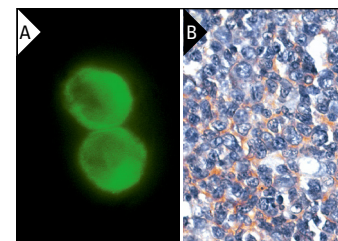
## RESEARCH USE

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

## DATA



CD81 (1.3.3.22): sc-7637. Western blot analysis of CD81 expression in Daudi (A) and Raji (B) whole cell lysates.



CD81 (1.3.3.22): sc-7637. Immunofluorescence staining of methanol-fixed Ramos cells showing membrane localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil showing membrane staining (B).

## SELECT PRODUCT CITATIONS

1. Flint, M., et al. 1999. Characterization of hepatitis C virus E2 glycoprotein interaction with a putative cellular receptor, CD81. *J. Virol.* 73: 6235-6244.
2. Nakamura, Y., et al. 2015. Mesenchymal-stem-cell-derived exosomes accelerate skeletal muscle regeneration. *FEBS Lett.* 589: 1257-1265.
3. Lopes-Rodrigues, V., et al. 2016. Multidrug resistant tumour cells shed more microvesicle-like EVs and less exosomes than their drug-sensitive counterpart cells. *Biochim. Biophys. Acta* 1860: 618-627.
4. Jung, A.L., et al. 2017. Legionella pneumophila infection activates bystander cells differentially by bacterial and host cell vesicles. *Sci. Rep.* 7: 6301.
5. Takamura, Y., et al. 2018. Small RNAs detected in exosomes derived from the MH7A synovial fibroblast cell line with TNF-α stimulation. *PLoS ONE* 13: e0201851.
6. Jarvis, C.M., et al. 2019. Antigen structure affects cellular routing through DC-SIGN. *Proc. Natl. Acad. Sci. USA* 116: 14862-14867.
7. Firoozi, S., et al. 2020. Mesenchymal stem cell-derived extracellular vesicles alone or in conjunction with a SDKP-conjugated self-assembling peptide improve a rat model of myocardial infarction. *Biochem. Biophys. Res. Commun.* 524: 903-909.
8. Gassmann, H., et al. 2021. Ewing sarcoma-derived extracellular vesicles impair dendritic cell maturation and function. *Cells* 10: 2081.
9. Gourdelier, M., et al. 2022. Optimized production and fluorescent labeling of SARS-CoV-2 virus-like particles. *Sci. Rep.* 12: 14651.
10. Powell, B.H., et al. 2023. miR-210 expression is strongly hypoxia-induced in anaplastic thyroid cancer cell lines and is associated with extracellular vesicles and argonaute-2. *Int. J. Mol. Sci.* 24: 4507.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.