

CD81 (0.N.165): sc-70803

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. It 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.

REFERENCES

- Oren, R., et al. 1990. TAPA-1, the target of an antiproliferative antibody, defines a new family of transmembrane proteins. *Mol. Cell. Biol.* 10: 4007-4015.
- Wright, M.D. and Tomlinson, M.G. 1994. The ins and outs of the transmembrane 4 superfamily. *Immunol. Today* 15: 588-594.
- Fearon, D.T. and Carter, R.H. 1995. The CD19/CR2/TAPA-1 complex of B lymphocytes: linking natural to acquired immunity. *Annu. Rev. Immunol.* 13: 127-149.

CHROMOSOMAL LOCATION

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

SOURCE

CD81 (0.N.165) is a mouse monoclonal antibody raised against human B cell line from Burkitt lymphoma.

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.

APPLICATIONS

CD81 (0.N.165) 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 10⁶ 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: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or U-87 MG cell lysate: sc-2411.

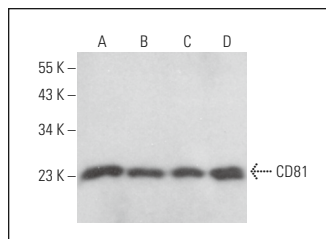
STORAGE

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

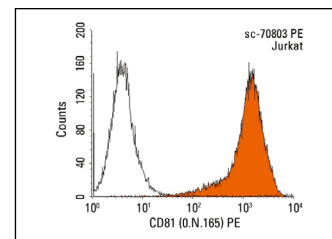
RESEARCH USE

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

DATA



CD81 (0.N.165): sc-70803. Western blot analysis of CD81 expression in K-562 (A), Jurkat (B), U-87 MG (C) and JAR (D) whole cell lysates.



CD81 (0.N.165) PE: sc-70803 PE. Indirect FCM analysis of Jurkat cells stained with CD81 (0.N.165), followed by PE-conjugated goat anti-mouse IgG₁: sc-3764. Black line histogram represents the isotype control, normal mouse IgG₁: sc-3877.

SELECT PRODUCT CITATIONS

- Bhave, V.S., et al. 2013. Regulation of liver growth by glypican 3, CD81, hedgehog, and Hhex. *Am. J. Pathol.* 183: 153-159.
- Márquez-Gómez, R., et al. 2018. Functional histamine H₃ and adenosine A_{2A} receptor heteromers in recombinant cells and rat striatum. *Pharmacol. Res.* 129: 515-525.
- Xiang, C., et al. 2018. Sphingosine-1-phosphate mediates the therapeutic effects of bone marrow mesenchymal stem cell-derived microvesicles on articular cartilage defect. *Transl. Res.* 193: 42-53.
- Collino, F., et al. 2020. Extracellular vesicles derived from induced pluripotent stem cells promote renoprotection in acute kidney injury model. *Cells* 9: 453.
- Xie, F., et al. 2020. Mechanical stress promotes angiogenesis through fibroblast exosomes. *Biochem. Biophys. Res. Commun.* 533: 346-353.
- Tian, J., et al. 2021. Autophagy controls esenchymal stem cell therapy in psychological stress colitis mice. *Autophagy* 17: 2586-2603.
- Deng, C.L., et al. 2021. Photoreceptor protection by mesenchymal stem cell transplantation identifies exosomal MiR-21 as a therapeutic for retinal degeneration. *Cell Death Differ.* 28: 1041-1061.
- Lopes, J.A., et al. 2022. Early effects of extracellular vesicles secreted by adipose tissue mesenchymal cells in renal ischemia followed by reperfusion: mechanisms rely on a decrease in mitochondrial anion superoxide production. *Int. J. Mol. Sci.* 23: 2906.
- Freiría-Martínez, L., et al. 2023. Human breast milk microRNAs, potential players in the regulation of nervous system. *Nutrients* 15: 3284.



See **CD81 (B-11): sc-166029** for CD81 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.