

CD81 (EAT2): sc-18877

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.
- Boismenu, R., et al. 1996. A role for CD81 in early T cell development. *Science* 271: 198-200.
- Mannion, B.A., et al. 1996. Transmembrane-4 superfamily proteins CD81 (TAPA-1), CD82, CD63, and CD53 specifically associated with integrin $\alpha 4\beta 1$ (CD49d/CD29). *J. Immunol.* 157: 2039-2047.

CHROMOSOMAL LOCATION

Genetic locus: Cd81 (mouse) mapping to 7 F5.

SOURCE

CD81 (EAT2) is an Armenian hamster monoclonal antibody raised against CD81+ B lymphoma cell line 38C131 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD81 (EAT2) is available conjugated to either phycoerythrin (sc-18877 PE) or fluorescein (sc-18877 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD81 (EAT2) is recommended for detection of CD81 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

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

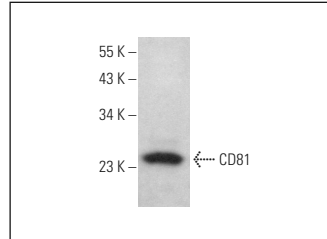
Molecular Weight of CD81: 22-26 kDa.

Positive Controls: MM-142 cell lysate: sc-2246 or c4 whole cell lysate: sc-364186.

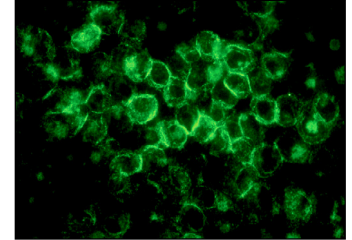
STORAGE

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

DATA



CD81 (EAT2): sc-18877. Western blot analysis of CD81 expression in c4 whole cell lysate.



CD81 (EAT2): sc-18877. Immunofluorescence staining of methanol-fixed WEHI-231 cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Flint, M., et al. 2006. Diverse CD81 proteins support hepatitis C virus infection. *J. Virol.* 80: 11331-11342.
- Dreux, M., et al. 2009. Receptor complementation and mutagenesis reveal SR-BI as an essential HCV entry factor and functionally imply its intra- and extra-cellular domains. *PLoS Pathog.* 5: e1000310.
- Bitzegeio, J., et al. 2010. Adaptation of hepatitis C virus to mouse CD81 permits infection of mouse cells in the absence of human entry factors. *PLoS Pathog.* 6: e1000978.
- Ramanathan, A., et al. 2016. Alirocumab, a therapeutic human antibody to PCSK9, does not affect CD81 levels or hepatitis C virus entry and replication into hepatocytes. *PLoS ONE* 11: e0154498.
- Kim, J., et al. 2017. RNA in salivary extracellular vesicles as a possible tool for systemic disease diagnosis. *J. Dent. Res.* 96: 938-944.
- Durcin, M., et al. 2017. Characterisation of adipocyte-derived extracellular vesicle subtypes identifies distinct protein and lipid signatures for large and small extracellular vesicles. *J. Extracell. Vesicles* 6: 1305677.
- Zadjali, F., et al. 2020. Tuberous sclerosis complex axis controls renal extracellular vesicle production and protein content. *Int. J. Mol. Sci.* 21: 1729.
- Lasswitz, L., et al. 2022. The tetraspanin CD81 is a host factor for chikungunya virus replication. *mBio* 13: e0073122.

RESEARCH USE

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



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.