

# CD81 (EAT1): sc-18876

## 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.

## REFERENCES

1. 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.
2. Wright, M.D. and Tomlinson, M.G. 1994. The ins and outs of the transmembrane 4 superfamily. *Immunol. Today* 15: 588-594.
3. 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.
4. Boismenu, R., et al. 1996. A role for CD81 in early T cell development. *Science* 271: 198-200.
5. 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 (EAT1) is a hamster monoclonal antibody raised against CD81+ B lymphoma cell line 38C131 of mouse origin.

## PRODUCT

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

CD81 (EAT1) is available conjugated to either phycoerythrin (sc-18876 PE) or fluorescein (sc-18876 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

## APPLICATIONS

CD81 (EAT1) is recommended for detection of CD81 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  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.

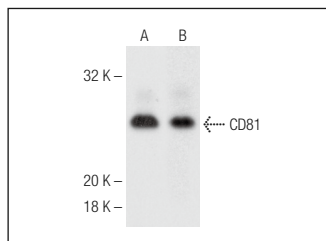
Molecular Weight of CD81: 22-26 kDa.

Positive Controls: MM-142 cell lysate: sc-2246, mouse lung extract: sc-2390 or mouse liver extract: sc-2256.

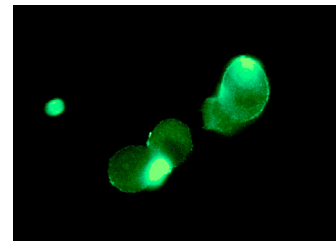
## STORAGE

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

## DATA



CD81 (EAT1): sc-18876. Western blot analysis of CD81 expression in mouse lung (A) and mouse liver (B) tissue extracts.



CD81 (EAT1): sc-18876. Immunofluorescence staining of methanol-fixed WEHI-231 cells showing membrane staining.

## SELECT PRODUCT CITATIONS

1. Clark, K.L., et al. 2004. CD81 associates with 14-3-3 in a redox-regulated palmitoylation-dependent manner. *J. Biol. Chem.* 279: 19401-19406.
2. Labonté, P., et al. 2009. PCSK9 impedes hepatitis C virus infection *in vitro* and modulates liver CD81 expression. *Hepatology* 50: 17-24.
3. 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.
4. Hasezaki, T., et al. 2020. Anti-CD81 antibodies reduce migration of activated T lymphocytes and attenuate mouse experimental colitis. *Sci. Rep.* 10: 6969.

## RESEARCH USE

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

## PROTOCOLS

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



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.