

## Datasheet: MCA1846

<b>Description:</b>	HAMSTER ANTI MOUSE CD81
<b>Specificity:</b>	CD81
<b>Other names:</b>	TAPA-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	Eat2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.25 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			1/50 - 1/100
Immunohistology - Frozen (1)	■			
Immunohistology - Paraffin		■		
ELISA	■			
Immunoprecipitation	■			
Western Blotting (2)	■			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

**(2)Clone Eat2 recognizes mouse CD81 under non-reducing conditions.**

<b>Target Species</b>	Mouse
<b>Species Cross Reactivity</b>	<p>Reacts with: Rat</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>

<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	38C13, murine B cell line.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P35762</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12520</a>    Cd81    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Tapa1
<b>RRID</b>	AB_323200
<b>Fusion Partners</b>	Spleen cells from immunised Armenian hamsters were fused with cells of the mouse PX3-Ag.8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Hamster anti Mouse CD81 antibody, clone Eat2</b> recognizes mouse and rat CD81, also known as TAPA-1 or Target of the antiproliferative antibody 1. CD81 is a 236 amino acid ~26 kDa multipass transmembrane protein belonging to the TM4SF family (<a href="#">UniProt: P35762</a>). In rodents CD81 is expressed at much higher levels on resting B cells than on T cells, although increased expression on T cells is found following activation. Hamster anti Mouse CD81 antibody, clone Eat2 induces homotypic aggregation of B cells and inhibits anti Ig and IL-4 induced proliferation (<a href="#">Maecker <i>et al.</i> 2000</a>). Eat 2 requires the presence of both extracellular loops of TAPA-1 for binding.</p> <p>Mice lacking CD81 demonstrate reduced fertility through impaired oocyte-sperm fusion, double knockout CD81<sup>-/-</sup> CD9<sup>-/-</sup> mice are completely infertile suggesting complimentary roles in oocyte-sperm fusion (<a href="#">Rubenstein <i>et al.</i> 2006</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>1. Maecker, H.T. <i>et al.</i> (2000) Differential expression of murine CD81 highlighted by new anti-mouse CD81 monoclonal antibodies. <a href="#">Hybridoma 19: 15-22.</a></li> <li>2. Owens, D.M. and Watt, F.M. (2001) Influence of beta1 integrins on epidermal</li> </ol>

squamous cell carcinoma formation in a transgenic mouse model: alpha3beta1, but not alpha2beta1, suppresses malignant conversion. [Cancer Res. 61: 5248-54.](#)

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9. Pan, Q. *et al.* (2011) Hepatic cell-to-cell transmission of small silencing RNA can extend the therapeutic reach of RNA interference (RNAi). [Gut. 61: 1330-9.](#)
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13. Jin, Y. *et al.* (2018) Double deletion of tetraspanins CD9 and CD81 in mice leads to a syndrome resembling accelerated aging. [Sci Rep. 8 \(1\): 5145.](#)
14. Royo, F. *et al.* (2024) Three-Dimensional Hepatocyte Spheroids: Model for Assessing Chemotherapy in Hepatocellular Carcinoma [Biomedicines. 12 \(6\): 1200.](#)

Storage	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1846">https://www.bio-rad-antibodies.com/SDS/MCA1846</a></p> <p>10040</p>
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Hamster IgG (STAR104...) [DyLight®550](#), [DyLight®650](#), [DyLight®800](#),  
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Goat Anti Hamster IgG (STAR79...) [Biotin](#), [FITC](#), [HRP](#)

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