

Datasheet: MCA2272

**BATCH NUMBER 165876**

<b>Description:</b>	MOUSE ANTI HUMAN DESMOGLEIN 2
<b>Specificity:</b>	DESMOGLEIN 2
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	6D8
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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			▪	
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			1/100 - 1/1000

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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Antibody purified from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	<0.1% sodium azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5 mg/ml

<b>Immunogen</b>	A-431 cell membranes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q14126</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">1829</a>    DSG2    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CDHF5
<b>RRID</b>	AB_2093429
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells of the mouse NS-1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human desmoglein 2 monoclonal antibody, clone 6D8</b> recognizes human desmoglein 2, a single pass type 1 membrane glycoprotein with 4 extracellular <a href="#">cadherin</a> domains and six cytoplasmic desmoglein repeat sequences, with a predicted molecular weight of ~122 kDa and an apparent molecular weight of ~160-165 kDa, due to post translational modification. Desmoglein 2 is a core component of the <a href="#">desmosome</a> cell-cell junction between epithelial cells.</p> <p>Mouse anti human desmoglein 2, clone 6D8 has been used for the study of the interaction between desmoglein 2 and adenoviruses which exploit desmoglein 2 as a receptor for infection (<a href="#">Wang et al. 2013</a>).</p> <p>Mouse anti Human desmoglein 2 monoclonal antibody, clone 6D8 recognizes a region encompassing a portion of extracellular domains 3 and 4 (<a href="#">Kolegraff et al. 2011</a>) and does not recognize desmoglein-1 or desmoglein-3 (<a href="#">Wahl et al. 2002</a>).</p>
<b>Histology Positive Control Tissue</b>	Human skin
<b>Western Blotting</b>	Mouse anti Human desmoglein 2 antibody, clone 6D8 detects a band of approximately 165 kDa in A-431 cell lysates.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Ishii, K. <i>et al.</i> (2001) Assembly of desmosomal cadherins into desmosomes is isoform dependent. <a href="#">J Invest Dermatol. 117 (1): 26-35.</a></li> <li>2. Wahl, J.K. 3rd (2002) Generation of monoclonal antibodies specific for desmoglein family members. <a href="#">Hybrid Hybridomics. 21 (1): 37-44.</a></li> <li>3. Sobolik-Delmaire, T. <i>et al.</i> (2006) Carboxyl terminus of Plakophilin-1 recruits it to plasma membrane, whereas amino terminus recruits desmoplakin and promotes desmosome assembly. <a href="#">J Biol Chem. 281 (25): 16962-70.</a></li> <li>4. Hemmoranta, H. <i>et al.</i> (2006) Transcriptional profiling reflects shared and unique characters for CD34+ and CD133+ cells. <a href="#">Stem Cells Dev. 15: 839-51.</a></li> <li>5. Nava, P. <i>et al.</i> (2007) Desmoglein-2: a novel regulator of apoptosis in the intestinal epithelium. <a href="#">Mol Biol Cell. 18: 4565-78.</a></li> </ol>

6. Yamamoto, Y. *et al.* (2007) Anti-desmoglein 3 (Dsg3) monoclonal antibodies deplete desmosomes of Dsg3 and differ in their Dsg3-depleting activities related to pathogenicity. [J Biol Chem. 282: 17866-76.](#)
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11. Wang, H. *et al.* (2012) A new human DSG2-transgenic mouse model for studying the tropism and pathology of human adenoviruses. [J Virol. 86 \(11\): 6286-302.](#)
12. Wang, H. *et al.* (2013) Structural and functional studies on the interaction of adenovirus fiber knobs and desmoglein 2. [J Virol. 87 \(21\): 11346-62.](#)
13. Pietkiewicz, P. *et al.* (2014) Discordant expression of desmoglein 2 and 3 at the mRNA and protein levels in nodular and superficial basal cell carcinoma revealed by immunohistochemistry and fluorescent *in situ* hybridization. [Clin Exp Dermatol. 39 \(5\): 628-35.](#)
14. Wang, H. *et al.* (2015) Intracellular Signaling and Desmoglein 2 Shedding Triggered by Human Adenoviruses Ad3, Ad14, and Ad14P1. [J Virol. 89 \(21\): 10841-59.](#)
15. Yumul, R. *et al.* (2016) Epithelial Junction Opener Improves Oncolytic Adenovirus Therapy in Mouse Tumor Models. [Hum Gene Ther. 27 \(4\): 325-37.](#)
16. Kim, J. *et al.* (2020) Desmoglein-2 as a prognostic and biomarker in ovarian cancer. [Cancer Biol Ther. : 1-9.](#)

<b>Storage</b>	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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2272">https://www.bio-rad-antibodies.com/SDS/MCA2272</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>

Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>

**Recommended Negative Controls**

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M415503:230105'

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