

Datasheet: MCA2272

Description:	MOUSE ANTI HUMAN DESMOGLEIN 2
Specificity:	DESMOGLEIN 2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	6D8
Isotype:	IgG1
Quantity:	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.

	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.

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

Immunogen A-431 cell membranes.

External Database Links

UniProt:

[Q14126](#) [Related reagents](#)

Entrez Gene:

[1829](#) DSG2 [Related reagents](#)

Synonyms CDHF5

RRID AB_2093429

Fusion Partners Spleen cells from immunized Balb/c mice were fused with cells of the mouse NS-1 myeloma cell line.

Specificity **Mouse anti Human desmoglein 2 monoclonal antibody, clone 6D8** recognizes human desmoglein 2, a single pass type 1 membrane glycoprotein with 4 extracellular [cadherin](#) 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 [desmosome](#) cell-cell junction between epithelial cells.

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 ([Wang et al. 2013](#)).

Mouse anti Human desmoglein 2 monoclonal antibody, clone 6D8 recognizes a region encompassing a portion of extracellular domains 3 and 4 ([Kolegraff et al. 2011](#)) and does not recognize desmoglein-1 or desmoglein-3 ([Wahl et al. 2002](#)).

Histology Positive Control Tissue Human skin

Western Blotting Mouse anti Human desmoglein 2 antibody, clone 6D8 detects a band of approximately 165 kDa in A-431 cell lysates.

- References**
1. Ishii, K. *et al.* (2001) Assembly of desmosomal cadherins into desmosomes is isoform dependent. [J Invest Dermatol. 117 \(1\): 26-35.](#)
 2. Wahl, J.K. 3rd (2002) Generation of monoclonal antibodies specific for desmoglein family members. [Hybrid Hybridomics. 21 \(1\): 37-44.](#)
 3. Sobolik-Delmaire, T. *et al.* (2006) Carboxyl terminus of Plakophilin-1 recruits it to plasma membrane, whereas amino terminus recruits desmoplakin and promotes desmosome assembly. [J Biol Chem. 281 \(25\): 16962-70.](#)
 4. Hemmoranta, H. *et al.* (2006) Transcriptional profiling reflects shared and unique characters for CD34+ and CD133+ cells. [Stem Cells Dev. 15: 839-51.](#)
 5. Nava, P. *et al.* (2007) Desmoglein-2: a novel regulator of apoptosis in the intestinal epithelium. [Mol Biol Cell. 18: 4565-78.](#)

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.](#)
7. Keim, S.A. *et al.* (2008) Generation and characterization of monoclonal antibodies against the proregion of human desmoglein-2. [Hybridoma \(Larchmt\). 27 \(4\): 249-58.](#)
8. Todorović, V. *et al.* (2010) Detection of differentially expressed basal cell proteins by mass spectrometry. [Mol Cell Proteomics. 9 \(2\): 351-61.](#)
9. Gornowicz-Porowska, J. *et al.* (2011) Loss of correlation between intensities of desmoglein 2 and desmoglein 3 expression in basal cell carcinomas. [Acta Dermatovenerol Croat. 19: 150-5.](#)
10. Brennan, D. *et al.* (2012) A role for caveolin-1 in desmoglein binding and desmosome dynamics. [Oncogene. 31 \(13\): 1636-48.](#)
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.](#)

Storage 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.

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

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2272>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

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

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M415503:230105'

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