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# Desmoglein-1 Monoclonal Mouse Antibody (18D4)

## Product Description

This antibody recognizes a protein of ~150 kDa, identified as Desmoglein-1 (DSG1). Desmoglein-1 is a member of the desmosomal cadherin family. Desmosomes are intercellular adhering junctions that represent cell surface attachment sites for intermediate filament. Desmocollins and desmogleins are the main desmosomal transmembrane proteins. Desmogleins consist of Dsg1, Dsg2, Dsg3, and Dsg4 isoforms. Within the desmosome, the extracellular domain of desmoglein is essential for calcium dependent heterophilic binding to the desmocollins, whereas the intracellular domain is essential for binding to the desmosomal plaque protein, plakoglobin. Desmoglein 1 is synthesized exclusively in the suprabasal layers. Intact and functionally active desmoglein 1 is essential to epidermal integrity.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 1435, Anti-Desmoglein-1 (18D4)**

## Product attributes

Antibody number	#1435
Antibody reactivity (target)	Desmoglein-1
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	18D4
Isotype	IgG1, kappa
Molecular weight	150 kDa (precursor); 160 kDa (mature)
Synonyms	Cadherin family member 4; CDHF4; Desmoglein-1; Desmosomal glycoprotein 1; DSG1; DSG1; EPKHE; EPKHIA; Pemphigus foliaceus antigen; PPKS1; SPPK1
Human gene symbol	DSG1
Entrez gene ID	1828
SwissProt	Q02413
Unigene	2633
Immunogen	Human desmoglein-1 intracellular domain (exact sequence is proprietary)
Antibody target cellular localization	Plasma membrane
Species reactivity	Human
Expected antibody applications	IHC (FFPE) (published for clone), IF (published for clone), WB (published for clone)
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunofluorescence: 1-2 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Western blotting 0.5-1 ug/mL. Optimal dilution for a specific application should be determined by user
Positive control	A431 or A-375 cells. Skin
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Cell adhesion
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	Epidermal cells

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. New England J Med (2000) 343:31-35. (IHC, FFPE)
2. J Inv Dermatol (2001) 117(5): 1302-1306. (WB)
3. J Biol Chem (2006) 281(6): 3614-3624. (WB)
4. Front Immunol (2019) 10: 2635. (IF)

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