

**Anti-Desmoglein-3 Antibody**  
**Mouse Monoclonal Antibody**  
**Catalog # AH13178****Specification**

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**Anti-Desmoglein-3 Antibody - Product Information**

Application	WB, IF, FC
Primary Accession	<a href="#">P32926</a>
Other Accession	<a href="#">1925</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	107533

**Anti-Desmoglein-3 Antibody - Additional Information****Gene ID** 1830**Other Names**130kDa pemphigus vulgaris antigen (PVA); Balding (Bal); Cadherin family member 6 (CDHF6);  
Desmoglein-3 (DSG3)**Application Note**

WB~~1:1000  
IF~~1:50~200  
FC~~1:10~50

**Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA &amp; 0.05% azide. Also available WITHOUT BSA &amp; azide at 1.0mg/ml.

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

Anti-Desmoglein-3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-Desmoglein-3 Antibody - Protein Information****Name** DSG3 ([HGNC:3050](#))**Synonyms** CDHF6**Function**A component of desmosome cell-cell junctions which are required for positive regulation of cellular adhesion (PubMed: <http://www.uniprot.org/citations/31835537> target="\_blank">31835537</a>). Required for adherens and desmosome junction assembly in

response to mechanical force in keratinocytes (PubMed:<a href="http://www.uniprot.org/citations/31835537" target="\_blank">31835537</a>). Required for desmosome-mediated cell-cell adhesion of cells surrounding the telogen hair club and the basal layer of the outer root sheath epithelium, consequently is essential for the anchoring of telogen hairs in the hair follicle (PubMed:<a href="http://www.uniprot.org/citations/9701552" target="\_blank">9701552</a>). Required for the maintenance of the epithelial barrier via promoting desmosome-mediated intercellular attachment of suprabasal epithelium to basal cells (By similarity). May play a role in the protein stability of the desmosome plaque components DSP, JUP, PKP1, PKP2 and PKP3 (PubMed:<a href="http://www.uniprot.org/citations/22294297" target="\_blank">22294297</a>). Required for YAP1 localization at the plasma membrane in keratinocytes in response to mechanical strain, via the formation of an interaction complex composed of DSG3, PKP1 and YWHAG (PubMed:<a href="http://www.uniprot.org/citations/31835537" target="\_blank">31835537</a>). May also be involved in the positive regulation of YAP1 target gene transcription and as a result cell proliferation (PubMed:<a href="http://www.uniprot.org/citations/31835537" target="\_blank">31835537</a>). Positively regulates cellular contractility and cell junction formation via organization of cortical F-actin bundles and anchoring of actin to tight junctions, in conjunction with RAC1 (PubMed:<a href="http://www.uniprot.org/citations/22796473" target="\_blank">22796473</a>). The cytoplasmic pool of DSG3 is required for the localization of CDH1 and CTNNB1 at developing adherens junctions, potentially via modulation of SRC activity (PubMed:<a href="http://www.uniprot.org/citations/22294297" target="\_blank">22294297</a>). Inhibits keratinocyte migration via suppression of p38MAPK signaling, may therefore play a role in moderating wound healing (PubMed:<a href="http://www.uniprot.org/citations/26763450" target="\_blank">26763450</a>).

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Cell junction, desmosome {ECO:0000250|UniProtKB:O35902}. Cytoplasm. Cell junction, tight junction. Cell junction

#### **Tissue Location**

Expressed throughout the basal and spinous layer of the epidermis with weak expression in the granular layer (at protein level) (PubMed:19717567). Expressed in skin and mucosa (at protein level) (PubMed:22294297, PubMed:30528827). Expressed in the basal layer of the outer root sheath of the telogen hair club, specifically at the cell membrane between the apex of the cells and the surrounding hair club (at protein level) (PubMed:9701552). Expression is less abundant between the lateral margins of the outer root sheath basal cells (at protein level) (PubMed:9701552). Also expressed in the tongue, tonsil and esophagus (PubMed:16740002).

### **Anti-Desmoglein-3 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Anti-Desmoglein-3 Antibody - Images**

### **Anti-Desmoglein-3 Antibody - Background**

Recognizes a protein of 130kDa, identified as Desmoglein-3 (DSG3). This MAb is highly specific to

Desmoglein-3 and does not cross-react with other members of the Desmoglein-family. DSG3 is a calcium-binding transmembrane glycoprotein component of desmosomes in vertebrate epithelial cells. Desmosomes are cell-cell junctions between epithelial, myocardial, and certain other cell types. Currently, three desmoglein subfamily members are identified and all are members of the cadherin cell adhesion molecule superfamily.