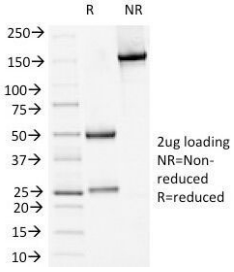
Desmoglein Antibody [clone 18D4] (V3266)

Catalog No.	Formulation	Size
V3266-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3266-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3266SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (7)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	18D4
Purity	Protein G affinity chromatography
UniProt	Q02413
Localization	Cell surface, cytoplasmic
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 0.5-1ug/ml
Limitations	This Desmoglein antibody is available for research use only.



Desmoglein Antibody 18D4 Gel Run. SDS-PAGE Analysis of Purified, BSA-Free Desmoglein antibody clone 18D4. Confirmation of Integrity and Purity of the Antibody.

Description

Desmoglein Antibody Clone 18D4 recognizes Desmoglein 1, a calcium-dependent desmosomal cadherin encoded by the DSG1 gene on chromosome 18q12.1. Desmoglein 1, also referred to as DSG1 in the literature, is a single-pass transmembrane glycoprotein localized to desmosomes at the plasma membrane of stratified epithelial cells, where it mediates strong cell-cell adhesion and maintains epidermal structural integrity. Desmoglein antibody, also known as DSG1 antibody, is widely used in research focused on epithelial differentiation, barrier formation, and autoimmune blistering diseases. Clone 18D4 has been referenced in multiple peer-reviewed publications, supporting its use in studies of desmosomal biology and epithelial pathology.

Desmoglein 1 is a member of the cadherin superfamily and functions as a core structural component of desmosomal junctions. Its extracellular cadherin repeats mediate calcium-dependent homophilic adhesion between adjacent keratinocytes, while its cytoplasmic domain interacts with desmosomal plaque proteins including Plakoglobin and Desmoplakin. Through these interactions, Desmoglein 1 anchors keratin intermediate filaments to the plasma membrane, reinforcing tissue resilience in areas exposed to mechanical stress, particularly the epidermis and mucosal epithelium.

Expression of DSG1 is predominantly observed in the suprabasal layers of stratified squamous epithelia, including skin, oral mucosa, and esophagus. It is highly expressed in differentiated keratinocytes and contributes to epidermal stratification and barrier function. Autoantibodies directed against Desmoglein 1 are implicated in pemphigus foliaceus, where disruption of desmosomal adhesion results in superficial epidermal blistering. Alterations in DSG1 expression have also been associated with inherited skin disorders characterized by impaired epidermal cohesion and inflammatory phenotypes.

Structurally, Desmoglein 1 contains multiple extracellular cadherin domains, a transmembrane region, and an intracellular tail that connects to the desmosomal plaque complex. Beyond structural adhesion, Desmoglein 1 participates in signaling pathways influencing keratinocyte differentiation and epidermal homeostasis. Dysregulated DSG1 expression may alter epithelial architecture and contribute to inflammatory or neoplastic processes in stratified epithelia. Through its essential role in maintaining desmosomal integrity, Desmoglein 1 remains central to research in epithelial biology and dermatologic disease mechanisms.

Explore our DSG1 Antibody - Desmosomal Adhesion and Epithelial Integrity Marker (clone MSVA-544M) page for a broader view of Desmoglein-1 expression across human tissue microarrays and epithelial stratification patterns.

Application Notes

Optimal dilution of the Desmoglein antibody clone 18D4 should be determined by the researcher.

Immunogen

A recombinant protein corresponding to the intracellular domain of human Desmoglein 1 was used as the immunogen for the Desmoglein antibody clone 18D4.

Storage

Store the Desmoglein antibody clone 18D4 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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