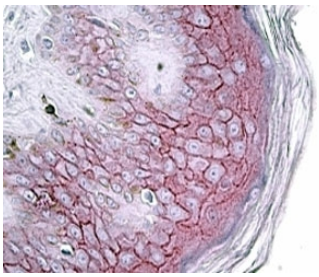
Desmoglein 1 Antibody Goat Polyclonal (R36403)

Catalog No.	Formulation	Size
R36403-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
UniProt	Q02413
Gene ID	1828
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE): 4-6ug/ml ELISA (peptide) LOD: 1:32000
Limitations	This Desmoglein 1 antibody is available for research use only.



Desmoglein 1 Antibody Human Skin IHC. Immunohistochemistry of Desmoglein 1 antibody in human skin tissue. Formalin-fixed, paraffin-embedded human skin shows strong membranous staining in suprabasal keratinocytes, consistent with Desmoglein 1 localization in desmosomal junctions of stratified squamous epithelium. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer prior to staining. The goat polyclonal Desmoglein 1 antibody was applied at 4 ug/ml, and AP-based chromogenic detection reveals distinct cell-cell junction staining along the epidermal layers.

Description

Desmoglein 1 antibody recognizes Desmoglein 1, a calcium-dependent cadherin family adhesion protein encoded by the DSG1 gene on chromosome 18q12.1. Desmoglein 1 is a transmembrane glycoprotein localized to desmosomes within the plasma membrane of stratified epithelial cells, where it plays a critical role in cell-cell adhesion and epidermal integrity.

Desmoglein 1 antibody, also referred to as DSG1 antibody in the literature, is widely used in research focused on epithelial differentiation, barrier formation, and autoimmune blistering diseases. This goat polyclonal antibody targets Desmoglein 1 for detection in research applications.

Desmoglein 1 is a member of the cadherin superfamily and functions as a core component of desmosomal junctions, interacting with other desmosomal cadherins such as Desmocollins and intracellular plaque proteins including Plakoglobin and Desmoplakin. Through these interactions, Desmoglein 1 anchors keratin intermediate filaments to the plasma membrane, reinforcing mechanical stability in tissues subjected to physical stress, particularly the epidermis. The extracellular cadherin repeats mediate calcium-dependent homophilic adhesion between adjacent cells, while the cytoplasmic domain links to the desmosomal plaque complex.

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 barrier formation. Alterations in Desmoglein 1 expression or function are associated with several dermatologic conditions. Autoantibodies targeting Desmoglein 1 are implicated in pemphigus foliaceus, where disruption of desmosomal adhesion leads to superficial epidermal blistering. Mutations in DSG1 have also been linked to inherited skin disorders characterized by impaired barrier function and inflammatory phenotypes.

Structurally, Desmoglein 1 contains multiple extracellular cadherin domains, a single-pass transmembrane region, and an intracellular cadherin-like sequence that mediates interactions with desmosomal plaque proteins. Its regulated expression during keratinocyte differentiation supports stratification and tissue organization. Dysregulated desmosomal signaling may influence epidermal proliferation and inflammatory responses, highlighting the broader biological importance of Desmoglein 1 beyond adhesion alone.

This goat polyclonal Desmoglein 1 antibody is suitable for detecting DSG1 expression in research applications focused on epithelial biology, skin disease mechanisms, and desmosomal protein regulation. 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 1 antibody goat polyclonal should be determined by the researcher.

Immunogen

Amino acids YTTSDTLKPSVHVHD were used as the immunogen for this Desmoglein 1 antibody goat polyclonal.

Storage

Aliquot and store the Desmoglein 1 antibody at -20oC.

Copyright © NSJ Bioreagents. All rights reserved.