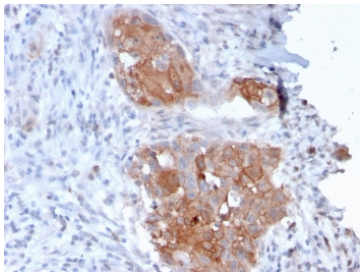
Desmoglein 1 Antibody / DSG1 [clone 32-2B] (V7720)

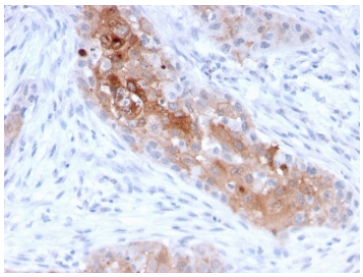
Catalog No.	Formulation	Size
V7720-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7720-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7720SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

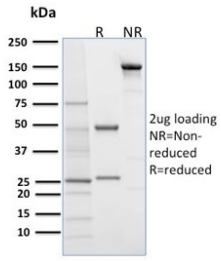
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	32-2B
Purity	Protein G affinity chromatography
UniProt	Q02413
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Desmoglein 1 antibody is available for research use only.



Desmoglein 1 Antibody 32-2B Bladder Carcinoma IHC. Immunohistochemistry of Desmoglein 1 antibody in human bladder carcinoma tissue. Formalin-fixed, paraffin-embedded human bladder carcinoma demonstrates membranous staining in clusters of tumor epithelial cells, consistent with Desmoglein 1 localization at desmosomal cell-cell junctions. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA buffer for 10-20 minutes prior to staining. The monoclonal antibody clone 32-2B was used as the primary antibody, revealing distinct intercellular membrane staining within carcinoma cells.



Desmoglein 1 Antibody Clone 32-2B FFPE Bladder Carcinoma Immunohistochemistry. IHC testing of FFPE human bladder carcinoma with Desmoglein 1 antibody clone 32-2B. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min.



SDS-PAGE analysis of purified, BSA-free Desmoglein 1 antibody clone 32-2B as confirmation of integrity and purity.

Description

Desmoglein 1 Antibody Clone 32-2B 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 intercellular adhesion and maintains epidermal structural integrity. Desmoglein 1 antibody, also known as DSG1 antibody, is widely used in research focused on epithelial differentiation, barrier formation, and autoimmune blistering diseases. Clone 32-2B has been referenced in multiple peer-reviewed publications, supporting its use in studies of desmosomal biology and skin 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 associates 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. Genetic alterations in DSG1 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 that influence 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 1 antibody clone 32-2B should be determined by the researcher.

Immunogen

Bovine desmoglein (desmosomal glyco protein I) from nasal epidermis was used as the immunogen for the Desmoglein 1 antibody clone 32-2B.

Storage

Store the Desmoglein 1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com