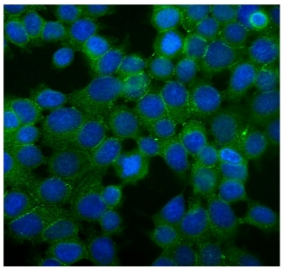
Desmoglein 2 Antibody (R30636)

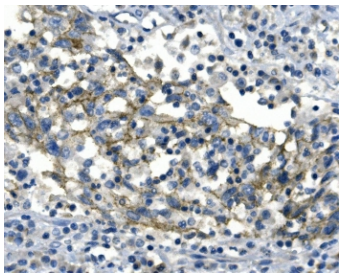
Catalog No.	Formulation	Size
R30636	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

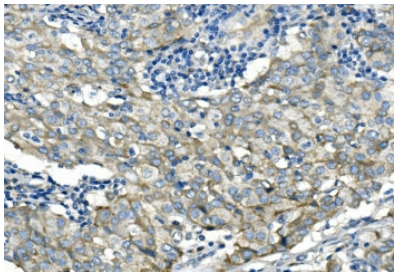
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	Q14126
Localization	Cytoplasm, membrane (cell junctions)
Applications	Western Blot : 0.5-1ug/ml IHC (FFPE) : 0.5-1ug/ml Immunofluorescence : 2-4ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Desmoglein 2 antibody is available for research use only.



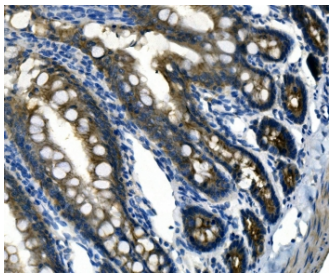
Desmoglein 2 Antibody MCF7 IF. Immunofluorescence analysis of FFPE human MCF7 cells stained with Desmoglein 2 antibody (green) detecting DSG2. Membranous and cell-cell junction-associated fluorescence is observed outlining epithelial cell borders, consistent with localization of DSG2 to desmosomal adhesion complexes that maintain epithelial integrity. Signal is concentrated at intercellular contacts, while the cytoplasm shows lower intensity staining. DAPI (blue) highlights nuclei.



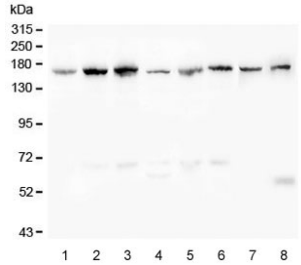
Desmoglein 2 Antibody Lung Cancer IHC. Immunohistochemistry analysis of FFPE human lung cancer tissue stained with Desmoglein 2 antibody detecting DSG2. Tumor epithelial cells show membranous and cytoplasmic staining, with accentuation along cell-cell borders consistent with localization of DSG2 in desmosomal adhesion complexes that support epithelial cohesion. Surrounding stromal and inflammatory cells show reduced staining. Hematoxylin counterstain highlights nuclei in blue. HIER: boil tissue sections in pH 8 EDTA buffer for 20 min and allow to cool before testing.



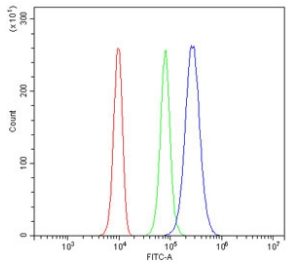
Desmoglein 2 Antibody Breast Cancer IHC. Immunohistochemistry analysis of FFPE human breast cancer tissue stained with Desmoglein 2 antibody detecting DSG2. Tumor epithelial cells demonstrate membranous and cytoplasmic staining with clear accentuation at cell-cell junctions, consistent with localization of DSG2 within desmosomal adhesion complexes that maintain epithelial structural integrity. Adjacent stromal elements show minimal staining. Hematoxylin counterstain highlights nuclei in blue. HIER: boil tissue sections in pH 8 EDTA buffer for 20 min and allow to cool before testing.



Desmoglein 2 Antibody Rat Intestine IHC. Immunohistochemistry analysis of FFPE rat intestine tissue stained with Desmoglein 2 antibody detecting DSG2. Epithelial cells lining intestinal glands and luminal surfaces show membranous and cytoplasmic staining with clear localization at cell-cell junctions, consistent with DSG2 presence in desmosomal adhesion complexes that maintain epithelial cohesion and structural integrity. Surrounding stromal tissue shows reduced staining. Hematoxylin counterstain highlights nuclei in blue. HIER: boil tissue sections in pH 8 EDTA buffer for 20 min and allow to cool before testing.



Desmoglein 2 Antibody Multi-Sample WB. Western blot analysis of human and rodent lysates using Desmoglein 2 antibody detecting DSG2. Lane 1: K562, Lane 2: HeLa, Lane 3: HepG2, Lane 4: A549, Lane 5: Caco-2, Lane 6: SW620, Lane 7: rat liver, Lane 8: mouse liver. A band is detected at approximately 130-160 kDa across multiple samples, consistent with the predicted molecular weight of Desmoglein 2, with variation reflecting glycosylation of this transmembrane desmosomal cadherin. The broad detection pattern across epithelial-derived cell lines and tissues supports DSG2 expression as a key component of desmosomal adhesion complexes involved in maintaining cell-cell junction integrity.



Desmoglein 2 Antibody 293T FACS. Flow cytometry analysis of human 293T cells stained with Desmoglein 2 antibody detecting DSG2. The antibody signal (blue) shows a clear rightward shift compared to cells alone (red) and isotype control (green), indicating positive surface-associated detection of DSG2. This pattern is consistent with Desmoglein 2 as a membrane-localized desmosomal cadherin involved in cell-cell adhesion.

Description

Desmoglein 2 (DSG2) is a calcium-dependent transmembrane cadherin that serves as a core component of desmosomes, specialized intercellular junctions responsible for strong cell-cell adhesion in epithelial and certain non-epithelial tissues. Desmoglein 2 Antibody recognizes this widely expressed adhesion molecule, which plays a central role in maintaining tissue architecture in organs exposed to mechanical stress, including skin, intestine, and cardiac tissue.

DSG2 belongs to the desmoglein subfamily of cadherins and functions alongside desmocollins, plakoglobin, plakophilins,

and desmoplakin to form the desmosomal complex. These structures anchor intermediate filaments between neighboring cells, providing mechanical stability and resistance to shear forces. Compared to other desmogleins, DSG2 shows broader expression across simple and stratified epithelia, making it a useful marker for general epithelial adhesion and desmosomal organization.

In epithelial tissues, DSG2 localizes primarily to the plasma membrane at sites of cell-cell contact, where it contributes to the formation of adhesive junctions that maintain cohesive tissue structure. Its extracellular cadherin domains mediate calcium-dependent interactions with adjacent cells, while intracellular regions connect to cytoskeletal networks through desmosomal plaque proteins. A Desmoglein 2 Antibody is therefore valuable for visualizing membrane-associated adhesion complexes and assessing epithelial organization.

Beyond structural roles, DSG2 has been implicated in signaling pathways that regulate cell proliferation, differentiation, and apoptosis. Altered expression or localization of DSG2 has been reported in various cancers and inflammatory conditions, where disruption of desmosomal adhesion can contribute to changes in tissue architecture, tumor progression, and cellular plasticity. In tumor biology, DSG2 expression may vary depending on tissue type and differentiation status, reflecting its involvement in epithelial integrity and junctional stability.

DSG2 is also expressed in cardiac tissue, where desmosomes are essential for maintaining intercellular connections between cardiomyocytes. Mutations or dysregulation of DSG2 have been associated with cardiomyopathies, highlighting its importance beyond epithelial systems. Together, these structural and functional roles support the use of a Desmoglein 2 Antibody in studies of desmosomal adhesion, epithelial integrity, and disease-associated changes in cell-cell junctions.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Desmoglein 2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human Desmoglein 2 (STRVTKHSTVQHSYS) was used as the immunogen for this Desmoglein 2 antibody.

Storage

After reconstitution, the Desmoglein 2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Desmoglein 2 antibody, DSG2 antibody, Desmosomal cadherin DSG2 antibody, Cadherin family DSG2 antibody, DSG2 adhesion molecule antibody