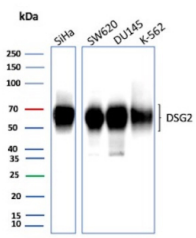
Desmoglein 2 Antibody / DSG2 [clone 8E5.] (V3288)

Catalog No.	Formulation	Size
V3288-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3288-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3288SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

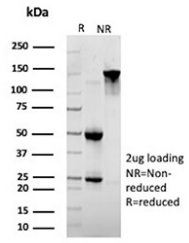
Citations (5)

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	8E5.
Purity	Protein G affinity chromatography
UniProt	Q14126
Localization	Cell surface
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-3ug/ml Western Blot : 2-4ug/ml
Limitations	This Desmoglein 2 antibody 8E5 is available for research use only.



Desmoglein-2 Antibody 8E5 Multi-Cell Line WB. Western blot analysis of human SiHa, SW620, DU145, and K-562 cell lysates using Desmoglein-2 antibody detecting DSG2. A band is observed at approximately 55-70 kDa across multiple samples, consistent with a processed or truncated form of Desmoglein 2, while the full-length protein is typically expected at a higher molecular weight depending on glycosylation. Signal is more prominent in epithelial-derived cell lines such as SiHa, SW620, and DU145, consistent with DSG2 expression in cells forming desmosomal adhesion complexes that support intercellular junction integrity, whereas K-562 cells show comparatively reduced signal.



SDS-PAGE analysis of purified, BSA-free Desmoglein 2 antibody (clone 8E5) as confirmation of integrity and purity.

Description

Desmoglein 2 Antibody clone 8E5 recognizes a protein of 165kDa, identified as Desmoglein-2 (DSG2). This monoclonal antibody recognizes the extracellular domain of human desmoglein-2. Desmoglein-2 is a member of the desmosomal cadherin family. Desmosomes are intercellular adhering junctions that represent cell surface attachment sites for intermediate filament. Desmocollins and desmogleins are the main desmosomal transmembrane proteins. Desmogleins consist of Dsg1, Dsg2, Dsg3, and Dsg4 isoforms. Within the desmosome, the extracellular domain of desmoglein is essential for calcium dependent heterophilic binding to the desmocollins, whereas the intracellular domain is essential for binding to the desmosomal plaque protein, plakoglobin. Human Desmoglein-2 is a type I transmembrane glycoprotein of 1117 amino acid (aa) residues with a 23 aa signal peptide and a 25 aa propeptide. It differs from other classic cadherins by having four instead of five cadherin repeat domains in its extracellular region, and a much larger cytoplasmic region containing five desmoglein repeat domains which share homology with the cadherin repeats. Instead of having the HAV adhesion motif found in type I cadherins, desmogleins have R/YAL as the adhesion motif on its amino-terminal cadherin repeat. The cytoplasmic tails of desmogleins interact with desmoplakins, plakoglobin and plakophilins. In turn, these proteins link the desmogleins with the intermediate filaments. Desmoglein-2 has been shown to be important in establishing cell-cell adhesion and function in epithelial cells. Desmoglein2 was originally identified in colon carcinoma and colon, and was named HDGC (human desmoglein colon).

Explore our Desmoglein 2 Antibody - Desmosomal Adhesion and Epithelial Integrity Marker page for a broader view of DSG2 expression in epithelial tissues and desmosome-associated biology.

Application Notes

Optimal dilution of the Desmoglein 2 antibody 8E5 should be determined by the researcher.

Immunogen

A recombinant human DSG2 protein was used as the immunogen for the Desmoglein 2 antibody.

Storage

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