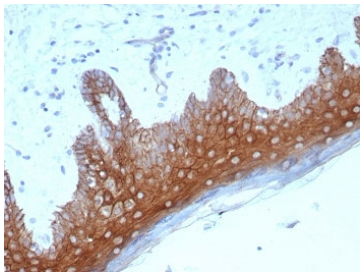
Desmoglein 1 Antibody Recombinant Rabbit MAb / DSG1 [clone DSG1/8576R] (V4571)

Catalog No.	Formulation	Size
V4571-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4571-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4571SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	DSG1/8576R
Purity	Protein A/G affinity
Buffer	IHC staining of FFPE human skin tissue with Desmoglein 1 antibody (clone DSG1/8576R). HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing. (recombinant rabbit mAb)
UniProt	Q02413
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Desmoglein 1 antibody is available for research use only.



Desmoglein 1 Antibody Recombinant Rabbit MAb Human Skin IHC. Immunohistochemistry of Desmoglein 1 antibody in human skin tissue. Formalin-fixed, paraffin-embedded human skin demonstrates strong membranous staining in suprabasal keratinocytes, consistent with Desmoglein 1 localization at desmosomal cell-cell junctions within stratified squamous epithelium. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA buffer for 20 minutes followed by cooling prior to staining. The recombinant rabbit monoclonal antibody clone DSG1/8576R was used as the primary antibody, showing distinct intercellular membrane staining throughout the epidermal layers.

Description

Desmoglein 1 antibody recombinant rabbit mAb clone DSG1/8576R recognizes Desmoglein 1, a calcium-dependent desmosomal cadherin encoded by the DSG1 gene on chromosome 18q12.1. Desmoglein 1, commonly referred to as DSG1, 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 integrity. Desmoglein 1 antibody, also known as DSG1 antibody in the literature, is widely used in research focused on epithelial differentiation, barrier formation, and autoimmune blistering disorders. This recombinant rabbit monoclonal antibody supports precise detection of Desmoglein 1 expression in epithelial tissues.

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 mechanical resilience in tissues subjected to friction and 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. Mutations 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 single transmembrane region, and an intracellular tail that connects to the desmosomal plaque complex. Beyond structural adhesion, Desmoglein 1 has been implicated 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 desmosomal integrity, Desmoglein 1 remains central to research focused on epithelial biology and skin 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 recombinant rabbit mAb should be determined by the researcher.

Immunogen

Recombinant human DSG1 protein was used as the immunogen for the Desmoglein 1 antibody recombinant rabbit mAb.

Storage

Aliquot the Desmoglein 1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.