Human Desmocollin-1 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2906A
Catalog Number: MAB4955

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Desmocollin-1 in direct ELISA.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2906A
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line, NS0-derived human Desmocollin-1 Arg135-Asn686 Accession # Q08554
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

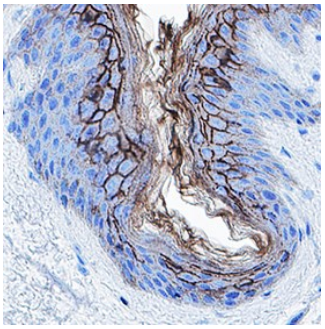
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of Human Skin

DATA

Immunohistochemistry



Detection of Desmocollin-1 in Human Skin. Desmocollin-1 was detected in immersion fixed paraffin-embedded sections of Human Skin using Rabbit Anti-Human Desmocollin-1 Monoclonal Antibody (Catalog # MAB4955) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell membrane in keratinocytes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Desmocollin-1 (DSC1) is a 100 kDa-110 kDa transmembrane glycoprotein in the cadherin family of calcium dependent adhesion molecules (1-3). Human DSC1 is synthesized with a 105 amino acid (aa) propeptide. The mature protein consists of a 557 aa extracellular domain (ECD) that contains five cadherin-like domains, a 23 aa transmembrane segment, and a 180 aa cytoplasmic domain (4, 5). Within the ECD, human DSC1 shares 79% and 82% aa sequence identity with bovine and mouse DSC1, respectively, and 53% with human DSC2 and DSC3. An alternately spliced isoform has a substituted and truncated cytoplasmic domain (5). DSC1 is one of the principal components of desmosomes which form adhesive contacts between epithelial cells (1, 2). It is predominantly expressed in the outer layers of stratified epithelia of the skin, tongue, and hair follicle root sheath (6, 7). It is required for both promoting epidermal differentiation and maintaining epidermal strength (8). DSC2 and DSC3, by contrast, are preferentially localized in the basal and suprabasal layers of the epidermis (1). DSC1 is not expressed in normal colon epithelium, but it is induced during colon carcinogenesis (9). Loss of DSC1 function in the skin disorders IgA pemphigus and Netherton Syndrome results from autoimmune targeting or enhanced KLK-7 mediated proteolysis, respectively (10-12).

References:

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