

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Desmocollin-1 in direct ELISA.
Source	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
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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).

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