

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Desmoglein-3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human (rh) Desmoglein-1 and rhDesmoglein-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Desmoglein-3 Glu50-Arg615 Accession # P32926
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
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

Desmoglein-3, also known as pemphigus vulgaris antigen (PVA), is a 130 kDa transmembrane glycoprotein that belongs to the cadherin family of calcium dependent adhesion molecules (1-3). Human Desmoglein-3 is synthesized with a 26 amino acid (aa) propeptide. The mature protein consists of a 566 aa extracellular domain (ECD) that contains four cadherin-like domains, a 25 aa transmembrane segment, and a 359 aa cytoplasmic domain (4). Within the ECD, human Desmoglein-3 shares 78% aa sequence identity with mouse and rat Desmoglein-3. It shares 44%, 47%, and 56% aa sequence identity with Desmoglein-1, -2, and -4 respectively. Desmoglein-3 is one of the principal components of desmosomes which form adhesive contacts between epithelial cells (1, 2). It is expressed in the basal and suprabasal layers of stratified epithelia in many tissues (4-6). During apoptosis, Desmoglein-3 is cleaved by caspases, plus MMP-2, and MMP-9 at sites within the cytoplasmic and extracellular regions, resulting in shortened transmembrane forms and a soluble 75 kDa ECD fragment (7, 8). The downregulation of Desmoglein-3 in oral squamous cell carcinoma correlates with metastatic potential (9). Desmoglein-3 is the target of autoantibodies in pemphigus vulgaris, a blistering skin disorder with compromised inter-keratinocyte adhesion (6, 10). Binding of these antibodies triggers Desmoglein-3 internalization and degradation by keratinocytes (10).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.