

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                    |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Desmoglein-1 in direct ELISAs.                                                             |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 129209                                                        |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                               |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant human Desmoglein-1<br>Glu50-His545<br>Accession # Q02413 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                          |
| <b>Formulation</b>                                                                                                                                                                                      | 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

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

#### BACKGROUND

Desmoglein-1 is one of three members of the desmoglein subfamily of calcium-dependent cadherin cell adhesion molecules. Together with desmocollins, another subfamily within the cadherin superfamily, the desmoglein isoforms form the adhesive components of desmosomes, the cell-cell adhesive structures that are found in epithelial cells. Human Desmoglein-1 is a type I transmembrane glycoprotein of 1049 amino acid (aa) residues with a 23 aa signal peptide and a 26 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, Desmoglein-1 has R/YAL as the adhesion motif on its amino-terminal cadherin repeat. The cytoplasmic tail of Desmoglein-1 interacts with desmoplakins, plakoglobin and plakophilins. In turn, these proteins link the Desmoglein-1 with the intermediate filaments. Desmoglein-1 has been shown to be important in establishing cell-cell adhesion and function in the epidermis. In the autoimmune skin disease pemphigus foliaceus, autoantibodies to Desmoglein-1 can cause the loss of keratinocyte adhesion resulting in blisters.

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