**DESCRIPTION**

**Species Reactivity**  Human

**Specificity**  Detects human Desmoglein-1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Desmoglein-2 is observed and less than 1% cross-reactivity with rhDesmoglein-3, rhDesmoglein-4, and recombinant mouse Desmoglein-1 alpha is observed.

**Source**  Polyclonal Goat IgG

**Purification**  Antigen Affinity-purified

**Immunogen**  Mouse myeloma cell line NS0-derived recombinant human Desmoglein-1 extracellular domain Glu50-His545

**Accession #**  Q02413

**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**  

<table>
<thead>
<tr>
<th>Sample</th>
<th>Concentration</th>
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</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 μg/mL</td>
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<tr>
<td>Immunohistochemistry</td>
<td>5-15 μg/mL</td>
</tr>
</tbody>
</table>

**DATA**

**Immunohistochemistry**

Desmoglein-1 was detected in immersion fixed paraffin-embedded sections of human skin using Goat Anti-Human Desmoglein-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF944) at 15 μg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

**PREPARATION AND STORAGE**

**Reconstitution**  Reconstitute at 0.2 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**  

- 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.

**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 desmogleins 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.

**References:**