Human Desmoglein-2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF947

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Desmoglein-2 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Desmoglein-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Desmoglein-2 Met1-Gly608 Accession # CAA81226
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.

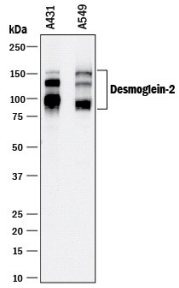
APPLICATIONS

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
Western Blot	0.25 µg/mL	See Below
Simple Western	5 µg/mL	See Below

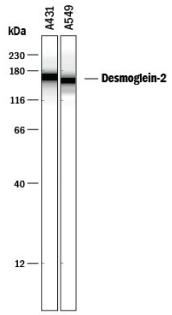
DATA

Western Blot



Detection of Human Desmoglein-2 by Western Blot. Western blot shows lysates of A431 human epithelial carcinoma cell line and A549 human lung carcinoma cell line. PVDF membrane was probed with 0.25 µg/mL of Goat Anti-Human Desmoglein-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF947) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). Specific bands were detected for Desmoglein-2 at approximately 90-160 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Desmoglein-2 by Simple Western™. Simple Western lane view shows lysates of A431 human epithelial carcinoma cell line and A549 human lung carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Desmoglein-2 at approximately 159-164 kDa (as indicated) using 5 µg/mL of Goat Anti-Human Desmoglein-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF947) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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	**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.

BACKGROUND

Desmoglein-2 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-2 is a type I transmembrane glycoprotein of 1117 amino acid (aa) residues with a 23 aa signal peptide and a 25 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, desmogleins have R/YAL as the adhesion motif on its amino-terminal cadherin repeat. The cytoplasmic tails of desmogleins interact with desmoplakins, plakoglobin and plakophilins. In turn, these proteins link the desmogleins with the intermediate filaments. Desmoglein-2 has been shown to be important in establishing cell-cell adhesion and function in epithelial cells. Desmoglein-2 was originally identified in colon carcinoma and colon, and was named HDGC (human desmoglein colon).

References:

1. Nollet, R. *et al.* (2000) J. Mol. Biol. **299**:551.
2. Elias, P. *et al.* (2001) J. Cell Biol. **153**:243.
3. Arnemann, J. *et al.* (1992) Genomics **13**:484.

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