

## DESCRIPTION

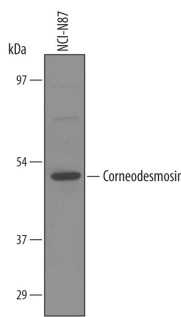
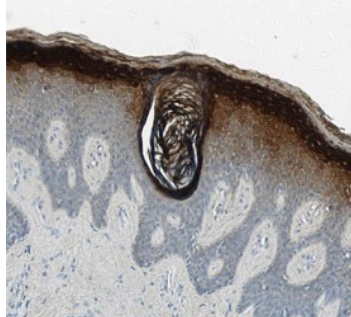
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Corneodesmosin in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Corneodesmosin Lys33-Pro529 (Ser153 del) Accession # NP_001255
<b>Formulation</b>	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
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human Corneodesmosin by Western Blot.</b> Western blot shows lysates of NCI-N87 human gastric carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Corneodesmosin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5725) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Corneodesmosin at approximately 52 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Corneodesmosin in Human Skin.</b> Corneodesmosin was detected in immersion fixed paraffin-embedded sections of human skin using Sheep Anti-Human Corneodesmosin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5725) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
---	---

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Corneodesmosin, also known as CDSN and the S gene product, is a highly polymorphic secreted glycoprotein that plays an important structural role in the skin (1). It is expressed by differentiated keratinocytes in the corneal layer of the skin and is a major component of corneodesmosomes (2-4). It is also expressed in the inner root sheath of hair follicles (5, 6). Corneodesmosome has a high content of glycine, serine, and proline residues that promote its folding into a series of Gly-loop domains (2, 7). Corneodesmosin forms oligomers and associates homophilically to strengthen the adhesion between corneocytes (8, 9). Corneodesmosin-deficient mice exhibit a detachment of the corneal layer of the skin as well as hypotrichosis of the scalp and baldness (6, 10). Corneodesmosin is secreted by keratinocytes as a 52-56 kDa molecule which is then subjected to repeated sequential N- and C-terminal proteolysis (11). Species of 46, 43, 36, and 15 kDa are present in corneocytes (7, 11). Cleavage of the N-terminal Gly-loop diminishes Corneodesmosin's ability to mediate adhesion, and this is a prerequisite for normal desquamation of the skin (8, 9). Reduced proteolysis of Corneodesmosin in psoriasis lesions is associated with the persistence of corneodesmosomes and scale retention (12). Premature truncation of Corneodesmosin is associated with hypotrichosis of the scalp (13).

**References:**

1. Pierard, G.E. *et al.* (2000) *Int. J. Mol. Med.* **6**:217.
2. Zhou, Y. and D.D. Chaplin (1993) *Proc. Natl. Acad. Sci. USA* **90**:9470.
3. Haftek, M. *et al.* (1997) *Br. J. Dermatol.* **137**:864.
4. Simon, M. *et al.* (1997) *J. Biol. Chem.* **272**:31770.
5. Mils, V. *et al.* (1992) *J. Histochem. Cytochem.* **40**:1329.
6. Matsumoto, M. *et al.* (2008) *Proc. Natl. Acad. Sci. USA* **105**:6720.
7. Guerrin, M. *et al.* (1998) *J. Biol. Chem.* **273**:22640.
8. Jonca, N. *et al.* (2002) *J. Biol. Chem.* **277**:5024.
9. Caubet, C. *et al.* (2004) *J. Invest. Dermatol.* **122**:747.
10. Leclerc, E.A. *et al.* (2009) *J. Cell Sci.* **122**:2699.
11. Simon, M. *et al.* (2001) *J. Biol. Chem.* **276**:20292.
12. Simon, M. *et al.* (2008) *Br. J. Dermatol.* **159**:77.
13. Levy-Nissenbaum, E. *et al.* (2003) *Nat. Genet.* **34**:151.