SANTA CRUZ BIOTECHNOLOGY, INC.

Dermcidin (N-20): sc-27465

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Antimicrobial peptides participate in the innate response, which may provide a barrier for protection against infection. The Dermcidin gene encodes an antimicrobial peptide DCD-1, which is constitutively expressed in sweat glands, secreted into the sweat, and transported to the epidermal surface. DCD-1 displays antimicrobial activity in response to a variety of pathogenic microorganisms. Overexpression of Dermcidin in breast cancers promotes cell growth and survival, and is coupled with a focal copy number gain of its locus on human chromosome 12q13.2.

REFERENCES

1. Schittek, B., et al. 2001. Dermcidin: a novel human antibiotic peptide secreted by sweat glands. Nat. Immunol. 2: 1133-1137.
2. Murakami, M., et al. 2002. Cathelicidin anti-microbial peptide expression in sweat, an innate defense system for the skin. J. Invest. Dermatol. 119: 1090-1095.
3. Flad, T., et al. 2002. Detection of Dermcidin-derived peptides in sweat by ProteinChip technology. J. Immunol. Methods 270: 53-62.
4. Porter, D., et al. 2003. A neural survival factor is a candidate oncogene in breast cancer. Proc. Natl. Acad. Sci. USA 100: 10931-10936.

CHROMOSOMAL LOCATION

Genetic locus: DCD (human) mapping to 12q13.2.

SOURCE

Dermcidin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Dermcidin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27465 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dermcidin (N-20) is recommended for detection of Dermcidin precursor and survival-promoting active peptide of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

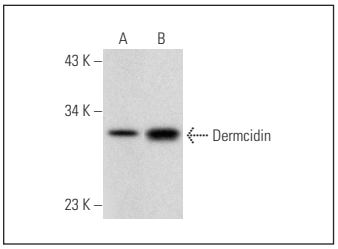
Suitable for use as control antibody for Dermcidin siRNA (h): sc-105288, Dermcidin shRNA Plasmid (h): sc-105288-SH and Dermcidin shRNA (h) Lentiviral Particles: sc-105288-V.

Positive Controls: Dermcidin (h): 293T Lysate: sc-370789.

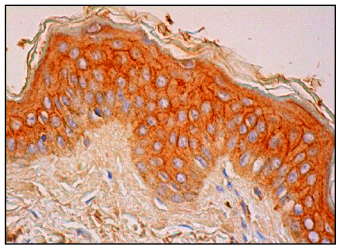
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Dermcidin (N-20): sc-27465. Western blot analysis of Dermcidin expression in non-transfected: sc-117752 (**A**) and human Dermcidin transfected: sc-370789 (**B**) 293T whole cell lysates.



Dermcidin (N-20): sc-27465. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing membrane and cytoplasmic staining of keratinocytes and Langerhans cells and cytoplasmic staining of fibroblasts.

SELECT PRODUCT CITATIONS

1. Pathak, S., et al. 2009. HIV induces both a down-regulation of IRAK-4 that impairs TLR signalling and an up-regulation of the antibiotic peptide dermcidin in monocytic cells. Scand. J. Immunol. 70: 264-276.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.