SANTA CRUZ BIOTECHNOLOGY, INC.

Dermcidin (H-12): sc-398429

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.
5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 606634. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Rieg, S., et al. 2004. Dermcidin is constitutively produced by eccrine sweat glands and is not induced in epidermal cells under inflammatory skin conditions. Br. J. Dermatol. 151: 534-539.

CHROMOSOMAL LOCATION

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

SOURCE

Dermcidin (H-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 72-97 near the C-terminus of Dermcidin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Dermcidin (H-12) is available conjugated to agarose (sc-398429 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398429 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398429 PE), fluorescein (sc-398429 FITC), Alexa Fluor® 488 (sc-398429 AF488), Alexa Fluor® 546 (sc-398429 AF546), Alexa Fluor® 594 (sc-398429 AF594) or Alexa Fluor® 647 (sc-398429 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398429 AF680) or Alexa Fluor® 790 (sc-398429 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398429 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Dermcidin (H-12) is recommended for detection of Dermcidin precursor and DCD-1 active peptide of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

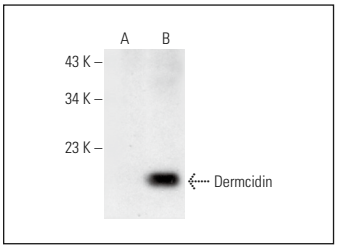
Suitable for use as control antibody for Dermcidin siRNA (h): sc-105288, Dermcidin shRNA Plasmid (h): sc-105288-SH and Dermcidin shRNA (h) Lentiviral Particles: sc-105288-V.

Positive Controls: human Dermcidin transfected HEK293T whole cell lysate.

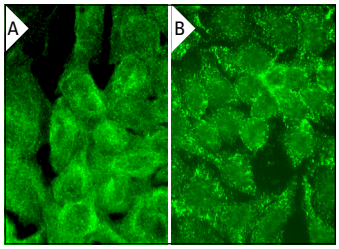
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Dermcidin (H-12): sc-398429. Western blot analysis of Dermcidin expression in non-transfected (**A**) and human Dermcidin transfected (**B**) HEK293T whole cell lysates.



Dermcidin (H-12): sc-398429. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cell surface localization (**A**). Immunofluorescence staining of formalin-fixed Hela cells showing cytoplasmic vesicle and cell surface localization (**B**).

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 for detailed protocols and support products.