SANTA CRUZ BIOTECHNOLOGY, INC.

cornulin (A-3): sc-514602

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cornulin, also known as tumor-related protein, CRNN, SEP53 (squamous epithelial heat shock protein 53), DRC1 or PDRC1, is a 495 amino acid cytoplasmic protein thought to play a role in epidermal differentiation and epithelial immune response. Specific to squamous epithelia cells, cornulin is express-ed in esophagus, cultured primary keratinocytes, scalp skin, foreskin and fetal bladder. Cornulin shares structural homology with S-100 proteins, profilaggrin, Repetin and Trichohyalin, and may be a potential marker for late epidermal differentiation and cancer development. Cornulin is upregulated by deoxycholic acid (DCA), heat shock and ponasterone A, and contains one EF-hand domain through which it protects cells from DCA-induced death. The gene encoding cornulin maps to human chromosome 1q21.3 and mouse chromosome 3 F2.1.

REFERENCES

1. Xu, Z., et al. 2000. Novel human esophagus-specific gene c1orf10: cDNA cloning, gene structure, and frequent loss of expression in esophageal cancer. Genomics 69: 322-330.
2. Contzler, R., et al. 2005. Cornulin, a new member of the "fused gene" family, is expressed during epidermal differentiation. J. Invest. Dermatol. 124: 990-997.
3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611312. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: CRNN (human) mapping to 1q21.3; Crnn (mouse) mapping to 3 F2.1.

SOURCE

cornulin (A-3) is a mouse monoclonal antibody raised against amino acids 32-92 mapping near the N-terminus of cornulin 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.

cornulin (A-3) is available conjugated to agarose (sc-514602 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514602 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514602 PE), fluorescein (sc-514602 FITC), Alexa Fluor® 488 (sc-514602 AF488), Alexa Fluor® 546 (sc-514602 AF546), Alexa Fluor® 594 (sc-514602 AF594) or Alexa Fluor® 647 (sc-514602 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514602 AF680) or Alexa Fluor® 790 (sc-514602 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

cornulin (A-3) is recommended for detection of cornulin of mouse, rat and 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 cornulin siRNA (h): sc-88337, cornulin siRNA (m): sc-142518, cornulin shRNA Plasmid (h): sc-88337-SH, cornulin shRNA Plasmid (m): sc-142518-SH, cornulin shRNA (h) Lentiviral Particles: sc-88337-V and cornulin shRNA (m) Lentiviral Particles: sc-142518-V.

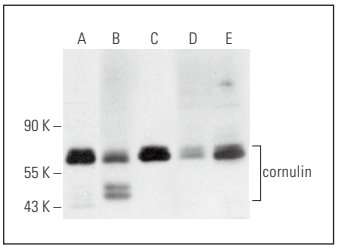
Molecular Weight of cornulin: 54 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HT-1080 whole cell lysate: sc-364183 or K-562 whole cell lysate: sc-2203.

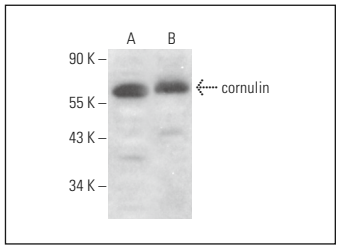
RECOMMENDED SUPPORT REAGENTS

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



cornulin (A-3): sc-514602. Western blot analysis of cornulin expression in human keratinocyte tissue extract (**A**) and BJ (**B**), HT-1080 (**C**), Hep G2 (**D**) and K-562 (**E**) whole cell lysates.



cornulin (A-3): sc-514602. Western blot analysis of cornulin expression in PC-3 (**A**) and c4 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kerdjoudj, M., et al. 2022. Characterization of cornulin as a molecular biomarker for the progression of oral squamous cell carcinoma. Cureus 14: e32210.

RESEARCH USE

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