SANTA CRUZ BIOTECHNOLOGY, INC.

β-defensin 121 (C-13): sc-85531

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

β-defensins (also designated BDs, or hBDs in human) are small cationic peptides with broad-spectrum antimicrobial activity against a variety of enveloped viruses, fungi and bacteria. Produced in mucosal epithelia and neutrophils of several species, β-defensins are developmentally regulated. The family of β-defensin proteins share a common defensin-motif that is characterized by multiple cysteine residues and a highly conserved tertiary structure. Besides playing a significant role in host immune defense, many β-defensins also are involved in sperm maturation and capacitation. β-defensin 121 is a 76 amino acid secreted protein that most likely contains a signal peptide sequence that requires cleavage by proteolytic enzymes in order to become biologically active. While expressed at low levels in testis, β-defensin 121 is abundantly expressed in epididymal caput and corpus and, unlike other β-defensins, it does not appear to be regulated by androgens.

REFERENCES

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5. Radhakrishnan, Y., et al. 2005. Identification, characterization, and evolution of a primate β-defensin gene cluster. Genes Immun. 6: 203-210.
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8. Abedin, A., et al. 2008. A novel antimicrobial peptide on the ocular surface shows decreased expression in inflammation and infection. Invest. Ophthalmol. Vis. Sci. 49: 28-33.
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CHROMOSOMAL LOCATION

Genetic locus: DEFB121 (human) mapping to 20q11.21.

SOURCE

β-defensin 121 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β-defensin 121 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-85531 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-defensin 121 (C-13) is recommended for detection of β-defensin 121 of human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for β-defensin 121 siRNA (h): sc-77119, β-defensin 121 shRNA Plasmid (h): sc-77119-SH and β-defensin 121 shRNA (h) Lentiviral Particles: sc-77119-V.

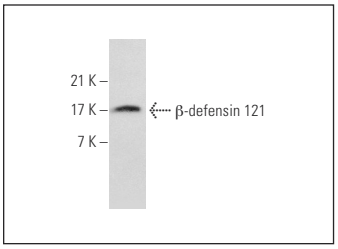
Molecular Weight of β-defensin 121: 8 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176.

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.

DATA



β-defensin 121 (C-13): sc-85531. Western blot analysis of β-defensin 121 expression in U-251-MG whole cell lysate.

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.