

HNP (C-19): sc-22916

BACKGROUND

Defensins are a family of microbicidal and cytotoxic peptides which are made by neutrophils and are thought to be involved in host defense. Defensins are abundant in the granules of neutrophils and are also found in the epithelia of mucosal surfaces such as those of the intestine, respiratory tract, urinary tract and vagina. There are six α -defensins, which are known as human neutrophil peptides (HNPs) in humans. HNP-1,2,3 and 4 are found in the microbicidal granules of neutrophils; HNP-5 and HNP-6 are located in Paneth cells of the intestinal tract. HNP-1 is found in the microbicidal granules of neutrophils and probably plays a role in phagocyte-mediated host defense. HNP-1, HNP-2 and HNP-3, which comprise about 30% of the total granule protein of the neutrophil, are secreted by most normal individuals. The HNP-1 protein is encoded by the α 1-defensin (DEFA1) gene. HNP-3 is encoded by the α 3-defensin (DEFA3) gene. HNP2 is a mature cleavage product of both precursor HNP-1 and HNP-3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DEFA1/DEFA3 (human) mapping to 8p23.1.

SOURCE

HNP (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HNP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22916 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HNP (C-19) is recommended for detection of precursor HNP-1 and HNP-3 and the mature cleavage product HNP-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Positive Controls: human PBL whole cell lysate.

SELECT PRODUCT CITATIONS

1. Donini, M., Fontana, S., Savoldi, G., Vermi, W., Tassone, L., Gentili, F., Zenaro, E., Ferrari, D., Notarangelo, L.D., Porta, F., Facchetti, F., Notarangelo, L.D., Dusi, S. and Badolato, R. 2007. G-CSF treatment of severe congenital neutropenia reverses neutropenia but does not correct the underlying functional deficiency of the neutrophil in defending against microorganisms. *Blood* 109: 4716-4723.
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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.



Try **HNP (H-2): sc-390796**, our highly recommended monoclonal alternative to HNP (C-19).