SANTA CRUZ BIOTECHNOLOGY, INC.

NAP-2 (hBA-70): sc-4938

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interleukin-8, growth-regulated gene (GRO), and neutrophil activating protein-2 (NAP-2) are members of a large family of small secreted proteins (8 to 10 kDa) with proinflammatory and reparative activities, including chemotaxis of neutrophils. Connective tissue-activating peptide III is a platelet-derived growth factor that stimulates a variety of specific metabolic and cellular activities including mitogenesis, extracellular matrix synthesis, glucose metabolism, and plasminogen activator synthesis in human fibroblast cultures. Pro-platelet basic protein is the precursor of the 2 platelet alpha-granule proteins, platelet basic protein (PBP) and connective tissue-activating peptide III. Upon platelet activation they are released and further processed in plasma to β-thromboglobulin and NAP-2. The type 1 IL8 receptor binds only IL8, while the type 2 IL8 receptor binds also GRO and NAP-2. The gene which encodes NAP-2 maps to human chromosome 4q12-q13.

REFERENCES

1. Castor, C.W., Miller, J.W., and Walz, D.A. 1983. Structural and biological characteristics of connective tissue-activating peptide (CTAP-III), a major human platelet-derived growth factor. Proc. Natl. Acad. Sci. USA 80: 765-769.
2. Castor, C.W., Furlong, A.M., and Carter-Su, C. 1985. Connective tissue activation: stimulation of glucose transport by connective tissue-activating peptide III. Biochemistry 24: 1762-1767.
3. O'Donovan, N., Galvin, M., and Morgan, J.G. 1999. Physical mapping of the CXC chemokine locus on human chromosome 4. Cytogenet. Cell Genet. 84: 39-42.
4. LocusLink Report (LocusID: 121010). http://www.ncbi.nlm.nih.gov/LocusLink/
5. LocusLink Report (LocusID: 146928). http://www.ncbi.nlm.nih.gov/LocusLink/

SOURCE

NAP-2 (hBA-70) is produced in *E. coli* as 7.6 kDa biologically active protein corresponding to 70 amino acids of NAP-2 of human origin.

PRODUCT

NAP-2 (hBA-70) is purified from bacterial lysates (>98%); supplied as 10 µg purified protein.

BIOLOGICAL ACTIVITY

NAP-2 (hBA-70) is biologically active as determined by its ability to chemoattract human neutrophils using a concentration range of 1.0–10.0 ng/ml.

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.

RECONSTITUTION

In order to avoid freeze/thaw damaging of the active protein, dilute protein when first used to desired working concentration. Either a sterile filtered standard buffer (such as 50mM TRIS or 1X PBS) or water can be used for the dilution. Store any thawed aliquot in refrigeration at 2° C to 8° C for up to four weeks, and any frozen aliquot at -20° C to -80° C for up to one year. It is recommended that frozen aliquots be given an amount of standard cryopreservative (such as Ethylene Glycol or Glycerol 5-20% v/v), and refrigerated samples be given an amount of carrier protein (such as heat inactivated FBS or BSA to 0.1% v/v) or non-ionic detergent (such as Triton X-100 or Tween 20 to 0.005% v/v), to aid stability during storage.

STORAGE

Store desiccated at -20° C; stable for one year from the date of shipment.