SANTA CRUZ BIOTECHNOLOGY, INC.

BNP (FL-134): sc-20159

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Natriuretic peptides comprise a family of three structurally related molecules: atrial natriuretic peptide (ANP), brain natriuretic peptide (BNP) and C-type natriuretic peptide (CNP). ANP and BNP act mainly as cardiac hormones, produced primarily by the atrium and ventricle, respectively, while the gene encoding C-type natriuretic peptide is expressed mainly in the brain. These peptides possess potent natriuretic, diuretic and vasodilating activities and are implicated in body fluid homeostasis and blood pressure control. ANP, BNP and CNP are highly homologous within the 17-residue ring structure formed by an intramolecular disulfide linkage. The genes which encode for ANP and BNP map to human chromosome 1p36.22. The gene which encodes for CNP maps to human chromosome 2q24-qter.

REFERENCES

1. Saito, T., et al. 1975. Proceedings: Systemic-pulmonary arteriovenous fistula -a report of a case. Jpn. Circ. J. 39: 723.
2. Mair, J., et al. 2001. The impact of cardiac natriuretic peptide determination on the diagnosis and management of heart failure. Clin. Chem. Lab. Med. 39: 571-588.
3. Cowie, M.R., et al. 2002. BNP and congestive heart failure. Prog. Cardiovasc. Dis. 44: 293-321.
4. Hobbs, F.D., et al. 2002. Reliability of N-terminal pro-brain natriuretic peptide assay in diagnosis of heart failure: cohort study in representative and high risk community populations. BMJ 324: 1498.
5. Hall, C. 2004. Essential biochemistry and physiology of (NT-pro)BNP. Eur. J. Heart Fail. 6: 257-260.
6. Pfister, R., et al. 2004. Use of NT-proBNP in routine testing and comparison to BNP. Eur. J. Heart Fail. 6: 289-293.
7. Lellouche, N., et al. 2007. Usefulness of preimplantation B-type natriuretic peptide level for predicting response to cardiac resynchronization therapy. Am. J. Cardiol. 99: 242-246.
8. Sheen, V., et al. 2007. The use of B-type natriuretic peptide to assess volume status in patients with end-stage renal disease. Am. Heart J. 153: 244.

CHROMOSOMAL LOCATION

Genetic locus: NPPB (human) mapping to 1p36.22.

SOURCE

BNP (FL-134) is a rabbit polyclonal antibody raised against amino acids 27-134 mapping at the C-terminus of BNP 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.

RESEARCH USE

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

APPLICATIONS

BNP (FL-134) is recommended for detection of precursor and mature BNP and the BNP-32 processed active peptide 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

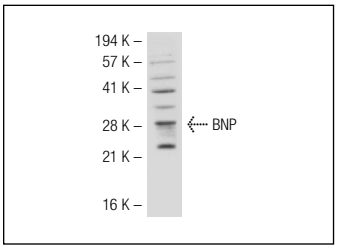
Suitable for use as control antibody for BNP siRNA (h): sc-43636, BNP shRNA Plasmid (h): sc-43636-SH and BNP shRNA (h) Lentiviral Particles: sc-43636-V.

Molecular Weight of glycosylated BNP precursor: 25-36 kDa.

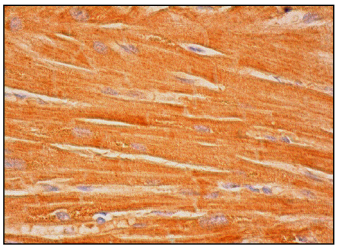
Molecular Weight of deglycosylated mature BNP: 12 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, SK-N-MC cell lysate: sc-2237 or IMR-32 cell lysate: sc-2409.

DATA



BNP (FL-134): sc-20159. Western blot analysis of BNP expression in U-87 MG whole cell lysate.



BNP (FL-134): sc-20159. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.