

ANP (N-20): sc-18811

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.

CHROMOSOMAL LOCATION

Genetic locus: NPPA (human) mapping to 1p36.22; Nppa (mouse) mapping to 4 E2.

SOURCE

ANP (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ANP 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-18811 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANP (N-20) is recommended for detection of ANP of mouse, rat and 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).

ANP (N-20) is also recommended for detection of ANP in additional species, including equine, canine, bovine, porcine and feline.

Suitable for use as control antibody for ANP siRNA (h): sc-37062, ANP siRNA (m2): sc-270393, ANP shRNA Plasmid (h): sc-37062-SH, ANP shRNA Plasmid (m2): sc-270393-SH, ANP shRNA (h) Lentiviral Particles: sc-37062-V and ANP shRNA (m2) Lentiviral Particles: sc-270393-V.

Molecular Weight of ANP: 17 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, rat heart extract: sc-2393 or mouse heart extract: sc-2254.

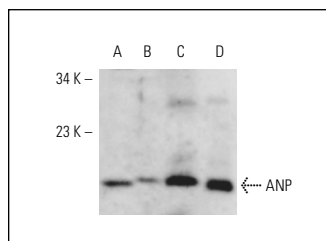
STORAGE

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.

DATA



ANP (N-20): sc-18811. Western blot analysis of ANP expression in Caki-1 (A) and A-10 (B) whole cell lysates and rat heart (C) and mouse heart (D) tissue extracts.

SELECT PRODUCT CITATIONS

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4. Wei, T.C., et al. 2011. Expression of Crip2, a LIM-domain-only protein, in the mouse cardiovascular system under physiological and pathological conditions. *Gene Expr. Patterns* 11: 384-394.
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6. Liu, S.J. 2013. Characterization of functional capacity of adult ventricular myocytes in long-term culture. *Int. J. Cardiol.* 168: 1923-1936.
7. Ding, W., et al. 2014. Polydatin attenuates cardiac hypertrophy through modulation of cardiac Ca²⁺ handling and calcineurin-NFAT signaling pathway. *Am. J. Physiol. Heart Circ. Physiol.* 307: H792-H802.
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