SANTA CRUZ BIOTECHNOLOGY, INC.

ANP (FL-153): sc-20158



.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 (FL-153) is a rabbit polyclonal antibody raised against amino acids 1-153 representing full length ANP of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as agarose conjugate for immunoprecipitation, sc-20158 AC, 500 $\mu g/0.25$ ml agarose in 1 ml.

APPLICATIONS

ANP (FL-153) 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 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).

ANP (FL-153) is also recommended for detection of ANP in additional species, including equine.

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, A-10 cell lysate: sc-3806 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.

SELECT PRODUCT CITATIONS

- 1. Li, C., et al. 2006. Localization of ANP-synthesizing cells in rat stomach. World J. Gastroenterol. 12: 5674-5679.
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- 4. Chu, C.H., et al. 2008. IGF-II/mannose-6-phosphate receptor signaling induced cell hypertrophy and atrial natriuretic peptide/BNP expression via G_{α q} interaction and protein kinase C- α /CaMKII activation in H9c2 cardiomyoblast cells. J. Endocrinol. 197: 381-390.
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- Shimoji, K., et al. 2010. G-CSF promotes the proliferation of developing cardiomyocytes *in vivo* and in derivation from ESCs and iPSCs. Cell Stem Cell 6: 227-237.
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- 9. Sin, Y.Y., et al. 2011. Disruption of the cyclic AMP phosphodiesterase-4 (PDE4)-HSP20 complex attenuates the β -agonist induced hypertrophic response in cardiac myocytes. J. Mol. Cell. Cardiol. 50: 872-883.
- Zhou, Y.C., et al. 2012. Effects of buyang huanwu decoction on ventricular remodeling and differential protein profile in a rat model of myocardial infarction. Evid. Based Complement. Alternat. Med. 2012: 385247.
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- 12. Lu, J., et al. 2013. Interferon regulatory factor 3 is a negative regulator of pathological cardiac hypertrophy. Basic Res. Cardiol. 108: 326.

RESEARCH USE

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

MONOS Satisfation Guaranteed Try ANP (23/1): sc-80686, our highly recommended monoclonal aternative to ANP (FL-153).