ANP (F-2): sc-515701

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 (F-2) is a mouse monoclonal antibody raised against amino acids 1-153 representing full length ANP of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ANP (F-2) is available conjugated to agarose (sc-515701 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515701 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515701 PE), fluorescein (sc-515701 FITC), Alexa Fluor® 488 (sc-515701 AF488), Alexa Fluor® 546 (sc-515701 AF546), Alexa Fluor® 594 (sc-515701 AF594) or Alexa Fluor® 647 (sc-515701 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515701 AF680) or Alexa Fluor® 790 (sc-515701 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

ANP (F-2) is recommended for detection of ANP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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: rat heart extract: sc-2393 or mouse heart extract: sc-2254.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2305, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

ANP(F-2) sc-515701. Western blot analysis of ANP expression in rat heart (A) and mouse heart (B) tissue extracts.

SELECT PRODUCT CITATIONS


RESEARCH USE

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

PROTOCOLS

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

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