



ANP (A137-M6-19-B6): sc-65502

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 1p36.2. The gene which encodes for CNP maps to human chromosome 2q24-qter.

REFERENCES

1. Yang-Feng, T.L., Floyd-Smith, G., Nemer, M., Drouin, J. and Francke, U. 1985. The pronatriodilatin gene is located on the distal short arm of human chromosome 1 and on mouse chromosome 4. *Am. J. Hum. Genet.* 37: 1117-1128.
2. Ogawa, Y., Itoh, H., Yoshitake, Y., Inoue, M., Yoshimasa, T., Serikawa, T. and Nakao, K. 1994. Molecular cloning and chromosomal assignment of the mouse C-type natriuretic peptide (CNP) gene (Nppc): comparison with the human CNP gene (NPPC). *Genomics* 24: 383-387.
3. Sabrane, K., Gambaryan, S., Brandes, R.P., Holtwick, R., Voss, M. and Kuhn, M. 2003. Increased sensitivity to endothelial nitric oxide (NO) contributes to arterial normotension in mice with vascular smooth muscle-selective deletion of the atrial natriuretic peptide (ANP) receptor. *J. Biol. Chem.* 278: 17963-17968.
4. Cameron, V.A., Rademaker, M.T., Ellmers, L.J., Espiner, E.A., Nicholls, M.G. and Richards, A.M. 2000. Atrial (ANP) and brain natriuretic peptide (BNP) expression after myocardial infarction in sheep: ANP is synthesized by fibroblasts infiltrating the infarct. *Endocrinology* 141: 4690-4697.
5. LocusLink Report (LocusID: 108780). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: NPPA (human) mapping to 1p36.21; Nppa (mouse) mapping to 4 E2.

SOURCE

ANP (A137-M6-19-B6) is a mouse monoclonal antibody raised against amino acids 40-55 of proANP of human origin.

PRODUCT

Each vial contains 100 µg IgG₃ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

ANP (A137-M6-19-B6) is recommended for detection of ANP of human origin by 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.

Molecular Weight of ANP: 17 kDa.

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.