

Rabbit Polyclonal Anti-proANP antibody

Catalog Number: PANP-101AP

Lot Number:

General Information

Product	proANP Antibody
Description	Atrial natriuretic peptide receptor 3 Antibody Affinity Purified
Accession #	Uniprot: P01160
Verified Applications	CM, ELISA, ICC, IF, IHC, IP, WB
Species Cross Reactivity	Human, Monkey, Mouse, Rat
Host	Rabbit
Immunogen	Synthetic peptide taken within amino acid region 100-150 on human proANP protein.
Alternative Nomenclature	ANF antibody, ANP antibody, ATRFB6 antibody, Atrial natriuretic factor antibody, Atrial natriuretic peptide antibody, ATRST2 antibody, Cardionatrin antibody, CDD-ANF antibody, CDP antibody, Natriuretic peptide A antibody, NPPA antibody, PND antibody, Prepronatriodilatin antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.6 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20°C for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunocytochemistry	1:200
Immunofluorescence	1:200
Immunohistochemistry	1:200
Immunoprecipitation	1:200
Western Blot	1:500

Related Products

Catalog

FITC-Conjugated	PANP-FITC
Antigenic Blocking Peptide	P-PANP
Western Blot Positive Control	PC-PANP
PGCA	PGCA-101AP
PGCB	PGCB-201AP
PGCC	PGCC-301AP
PGCD	PGCD-401AP
PGCE	PGCE-501AP
PGCF	PGCF-601AP
PGCG	PGCG-701AP
Phospho-proANP	PANPRA-140AP
Pro-BNP	PBNP-101AP
Natriuretic Peptide Receptor C	NPRC-301AP

Overview:

The family of natriuretic peptides comprises of several 22-53 amino acid peptides with vasodilator and diuretic properties. Natriuretic peptides play a pivotal role in cardiovascular homeostasis. Currently, five natriuretic peptides have been discovered: Atrial natriuretic peptide (ANP), Brain natriuretic peptide (BNP), C-type natriuretic peptide (CNP), Dendroaspis natriuretic peptide (DNP) and Urodilatin. The prohormones for ANP, BNP and CNP are encoded by different genes. ANP and BNP are secreted as prohormones (Pro-ANP and Pro-BNP) and their levels significantly increases in non survival cardiac dysfunction patients (1). They are also useful as laboratory markers for myocardial dysfunction and various other clinical conditions such as pulmonary thrombo embolism, transient tachypnea, sepsis and stroke. The levels of these peptides may also differentiate between survival and non-survival acute sepsis. Pro-ANP is stored in the cells and is released upon stretch from atria into circulation. The rate limiting protease, corin, a trans-membrane serine protease converts Pro-ANP in to ANP for immediate release in to circulation. The release of ANP causes an increase in cGMP in the cells by acting on 3 types of ANP receptors: ANPA, ANPB and ANPC. In situ, ANP is phosphorylated by cAMP-dependent Kinase at Ser-104. Only a subpopulation of the ANP molecules is regulated by this mechanism. The pro-ANP gene is a 151 amino acid soluble protein with a low complexity amino terminal region. The proANP (15 kDa) is cleaved by cardio myocytes to 3kDa active ANP. There is a significant homology in the primary amino acid sequence and of physiological effects of ANP across different species.

The ProANP-selective antibody (PANP-101AP) was generated against a peptide from 100-150 using cyclic peptide methodology for generating antibodies, which results in higher titer and specificity (6). The ProANP protein is approximately an 18kDa (151 amino acids) protein. Western blot positive control samples and antigenic blocking peptide are available. The affinity purified mono-specific polyclonal antibody to ProANP strongly labels a 15-18 kDa protein in western blot positive control (PC-PANP) samples and in various tissues examined. Antibodies can be conjugated to secondary enzymes or fluorescent probes upon request as an additional charge. FabGennix carries several antibodies against Natriuretic peptides and related peptides, for a complete listing please view our catalog at <http://fabgennix.com>.

References:

1. Hoffmann U, Brueckmann M, Bertsch T, Wiessner M, Liebetrau C, Lang S, Haase KK, Borggrete M, Huhle G. Increased plasma levels of NT-proANP and NT-proBNP as markers of cardiac dysfunction in septic patients. Clin Lab. 2005;51(7-8):373-9.

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