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BNP Antibody
Mouse Monoclonal Antibody to BNP
Catalog # AO1128c

Specification

BNP Antibody - Product Information

Application	**IHC**
Primary Accession	P16860
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**14726**

Description
BNP (brain natriuretic peptide) belongs to a family of structurally similar peptide hormones, which includes atrial natriuretic peptide (ANP), BNP, C-type natriuretic peptide (CNP) and urodilatin. 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. BNP circulates in blood as a peptide hormone with natriuretic, vasodilatory and renin inhibitory properties. It is secreted predominantly by the left ventricular myocytes in response to volume expansion and pressure overload. These peptides are characterized by a common 17 amino acid ring structure with a disulfide bond between two cystein residues. This ring structure shows high homology between different natriuretic.

Immunogen
Synthetic peptide corresponding to aa (Glu-Pro-Leu-Gln-Glu-Ser-Pro-Arg-Pro-Thr-Gly-Val-Trp-Cys) of human BNP, conjugated to KLH.

BNP Antibody - Additional Information

Gene ID 4879

Other Names
Natriuretic peptides B, Gamma-brain natriuretic peptide, Brain natriuretic peptide 32, BNP(1-32), BNP-32, BNP(1-30), BNP(1-29), BNP(1-28), BNP(2-31), BNP(3-32), BNP(3-30), BNP(3-29), BNP(4-32), BNP(4-31), BNP(4-30), BNP(4-29), BNP(4-27), BNP(5-32), BNP(5-31), BNP(5-29), NPPB

Target/Specificity
Synthetic peptide corresponding to aa (Glu-Pro-Leu-Gln-Glu-Ser-Pro-Arg-Pro-Thr-Gly-Val-Trp-Cys) of human BNP, conjugated to KLH.

Dilution
IHC~~1:200~~1000

Format
Ascitic fluid containing 0.03% sodium azide.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small

aliquots to prevent freeze-thaw cycles.

Precautions
BNP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

BNP Antibody - Protein Information

Name NPPB

Function
[Brain natriuretic peptide 32]: Cardiac hormone that plays a key role in mediating cardio-renal homeostasis (PubMed:1672777, PubMed:17372040, PubMed:1914098, PubMed:9458824). May also function as a paracrine antifibrotic factor in the heart (By similarity). Acts by specifically binding and stimulating NPR1 to produce cGMP, which in turn activates effector proteins that drive various biological responses (PubMed:1672777, PubMed:17349887, PubMed:17372040, PubMed:21098034, PubMed:25339504, PubMed:9458824). Involved in regulating the extracellular fluid volume and maintaining the fluid- electrolyte balance through natriuresis, diuresis, vasorelaxation, and inhibition of renin and aldosterone secretion (PubMed:1914098, PubMed:9458824). Binds the clearance receptor NPR3 (PubMed:16870210).

Cellular Location
[NT-proBNP]: Secreted Note=Detected in blood. [Brain natriuretic peptide 32]: Secreted. Note=Detected in blood.

Tissue Location
[Brain natriuretic peptide 32]: Detected in the cardiac atria (at protein level) (PubMed:2136732, PubMed:2138890) Detected in the kidney distal tubular cells (at protein level) (PubMed:9794555).

BNP Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BNP Antibody - Images

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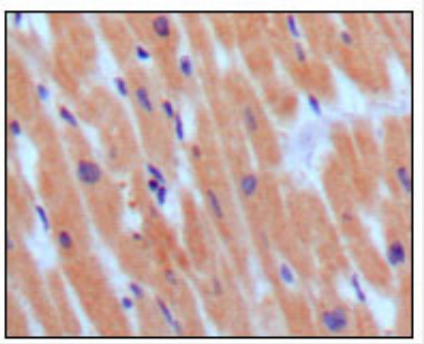

Figure 1: Immunohistochemical analysis of paraffin-embedded human normal myocardium, showing cytoplasmic localization using BNP3 mouse mAb with DAB staining.

BNP Antibody - References

1. Dawson A. Struthers AD. Expert Opin Biol Ther. 2003, Feb, 3(1):107-12. Review.
2. Pfister R. Erdmann E. Schneider CA. Dtsch Med Wochenschr. 2003,May 2, 128(18):1007-12.