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BNP Antibody

Mouse Monoclonal Antibody to BNP
Catalog # AO1128c

Product Information

Application	IHC, E
Primary Accession	P16860
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3A6F7C7
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.

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 E~~N/A
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.

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).

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.

Images

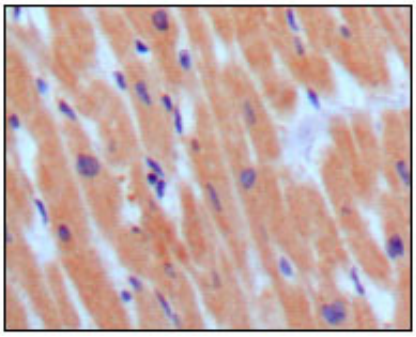

Figure 1: Immunohistochemical analysis of paraffin-embedded human normal myocardium, showing cytoplasmic localization using BNP3 mouse mAb with DAB staining.