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BNP Rabbit pAb

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Catalog # AP58603

Product Information

Application	E
Primary Accession	P16860
Predicted	Dog, Pig, Sheep, Goat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	14726
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human BNP
Epitope Specificity	109-131/131
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
SIMILARITY	Belongs to the natriuretic peptide family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Brain natriuretic peptide (BNP), also known as B-type natriuretic peptide, is a hormone secreted by cardiomyocytes in the heart ventricles in response to stretching caused by increased ventricular blood volume. The 32-amino acid polypeptide BNP is secreted attached to a 76–amino acid N-terminal fragment in the prohormone called NT-proBNP (BNPT), which is biologically inactive. Once released, BNP binds to and activates the atrial natriuretic factor receptor NPRA, and to a lesser extent NPRB, in a fashion similar to atrial natriuretic peptide (ANP) but with 10-fold lower affinity. The biological half-life of BNP, however, is twice as long as that of ANP, and that of NT-proBNP is even longer, making these peptides better targets than ANP for diagnostic blood testing.

Additional Information

Gene ID	4879
Other Names	Natriuretic peptides B, Brain natriuretic factor prohormone, preproBNP, 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	Brain and also in atria, but at much lower levels than ANP.
Dilution	ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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).

Background

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