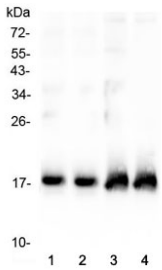
ANP Antibody / ANF / Atrial Natriuretic Peptide (RQ4454)

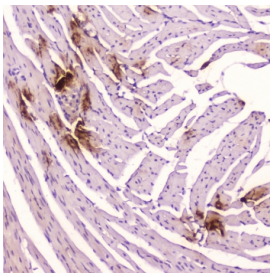
Catalog No.	Formulation	Size
RQ4454	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

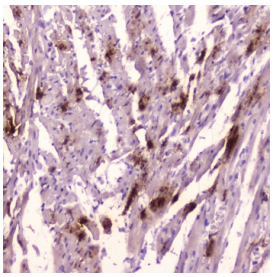
Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P01161
Localization	Secreted
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Direct ELISA: 0.1-0.5ug/ml (rat recombinant protein)
Limitations	This ANP antibody is available for research use only.



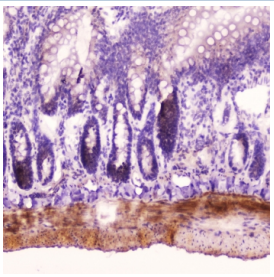
Western blot testing of two lots of rat heart lysate (lanes 1 & 2) and two lots of mouse heart lysate (lanes 3 & 4) with ANP antibody at 0.5ug/ml. Predicted molecular weight ~17 kDa.



ANP Antibody Mouse Heart IHC. Immunohistochemistry staining of FFPE mouse heart tissue using ANP antibody demonstrates localized cytoplasmic staining within cardiac-associated cell populations, consistent with expression of Atrial Natriuretic Peptide (ANP/ANF). ANP is a peptide hormone encoded by the NPPA gene and functions as a key regulator of cardiovascular homeostasis, fluid balance, and natriuretic peptide signaling. The observed staining pattern is consistent with the established role of cardiac tissue as a primary site of ANP production and endocrine activity. These findings support the utility of ANP antibody for studies of cardiac hormone biology, cardiovascular signaling pathways, and endocrine regulation. HIER: boil tissue sections in pH6 10mM citrate buffer for 10-20 min followed by cooling at room temperature for 20 min.



ANP Antibody Rat Heart IHC. Immunohistochemistry staining of FFPE rat heart tissue using ANP antibody demonstrates localized cytoplasmic staining within cardiac muscle-associated cell populations, consistent with expression of Atrial Natriuretic Peptide (ANP/ANF). ANP is a cardiac-derived peptide hormone encoded by the NPPA gene that participates in natriuretic peptide signaling pathways regulating cardiovascular homeostasis, circulatory balance, and endocrine communication. The observed staining pattern is consistent with the established role of cardiac tissue as a major source of ANP production and secretion. These findings support the utility of ANP antibody for studies of cardiac endocrine function, cardiovascular signaling, and peptide hormone biology. HIER: boil tissue sections in pH6 10mM citrate buffer for 10-20 min followed by cooling at room temperature for 20 min.



ANP Antibody Rat Small Intestine IHC. Immunohistochemistry staining of FFPE rat small intestine tissue using ANP antibody demonstrates localized staining within submucosal and stromal-associated cellular structures, consistent with expression of Atrial Natriuretic Peptide (ANP/ANF). ANP is a peptide hormone encoded by the NPPA gene that functions as an important regulator of cardiovascular homeostasis, fluid balance, and endocrine signaling. While ANP is most prominently associated with cardiac tissue, natriuretic peptide signaling components are also present in extra-cardiac tissues where they may participate in local regulatory and homeostatic processes. These findings support the utility of ANP antibody for studies of peptide hormone expression, endocrine communication, and natriuretic peptide biology. HIER: boil tissue sections in pH6 10mM citrate buffer for 10-20 min followed by cooling at room temperature for 20 min.

Description

ANP Antibody specifically detects Atrial natriuretic peptide, also known as NPPA or PND, a powerful vasodilator, and a protein (polypeptide) hormone secreted by heart muscle cells. This gene is mapped to 1p36.22. It is involved in the homeostatic control of body water, sodium, potassium and fat (adipose tissue). ANP is released by muscle cells in the upper chambers (atria) of the heart (atrial myocytes) in response to high blood volume. It acts to reduce the water, sodium and adipose loads on the circulatory system, thereby reducing blood pressure. ANP has exactly the opposite function of the aldosterone secreted by the zona glomerulosa in regard to its effect on sodium in the kidney--that is, aldosterone stimulates sodium retention and it generates sodium loss.

Learn more about atrial natriuretic peptide signaling, cardiovascular hormone regulation, and natriuretic factor biology on our ANF Antibody page.

Application Notes

Optimal dilution of the ANP antibody should be determined by the researcher.

Immunogen

Rat ANP recombinant protein (amino acids N25-R122) was used as the immunogen for the ANP antibody.

Storage

After reconstitution, the ANP antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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