

Product Name: ANP (19C4) Rabbit Monoclonal Antibody
Catalog #: AMRe06936

Summary

Production Name	ANP (19C4) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IP,IF-P
Reactivity	Human,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	NPPA
Alternative Names	ANF; ANP; PND; ATFB6; CDD-ANF; NPPA; Natriuretic peptides A; LANP; VSDL;
Gene ID	4878.0
SwissProt ID	P01160.

Application

Dilution Ratio	WB 1:1000, IHC-P/IF-P 1:500-1:2000, IP 1:20-1:50
Molecular Weight	16kDa

Background

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Hormone playing a key role in cardiovascular homeostasis through regulation of natriuresis, diuresis, and vasodilation. Also plays a role in female pregnancy by promoting trophoblast invasion and spiral artery remodeling in uterus. [Atrial natriuretic peptide]: Hormone that plays a key role in mediating cardio-renal homeostasis, and is involved in vascular remodeling and regulating energy metabolism (PubMed:8653797, PubMed:7595132, PubMed:2825692, PubMed:7720651, PubMed:8087923, PubMed:2532366, PubMed:22307324, PubMed:18835931, PubMed:21672517, PubMed:15741263, PubMed:16875975). Acts by specifically binding and stimulating NPR1 to produce cGMP, which in turn activates effector proteins, such as PRKG1, that drive various biological responses (PubMed:25401746, PubMed:9893117, PubMed:1672777, PubMed:1660465, PubMed:2162527, PubMed:2825692, PubMed:7720651, PubMed:22307324, PubMed:8384600, PubMed:21098034). Regulates vasodilation, natriuresis, diuresis and aldosterone synthesis and is therefore essential for regulating blood pressure, controlling the extracellular fluid volume and maintaining the fluid-electrolyte balance (PubMed:8653797, PubMed:7595132, PubMed:2825692, PubMed:7720651, PubMed:2532366, PubMed:8087923). Also involved in inhibiting cardiac remodeling and cardiac hypertrophy by inducing cardiomyocyte apoptosis and attenuating the growth of cardiomyocytes and fibroblasts (PubMed:16875975). Plays a role in female pregnancy by

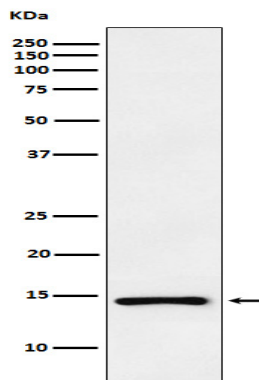
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promoting trophoblast invasion and spiral artery remodeling in uterus, and thus prevents pregnancy-induced hypertension (By similarity). In adipose tissue, acts in various cGMP- and PKG-dependent pathways to regulate lipid metabolism and energy homeostasis (PubMed: [22307324](http://www.uniprot.org/citations/22307324)), PubMed: [18835931](http://www.uniprot.org/citations/18835931), PubMed: [21672517](http://www.uniprot.org/citations/21672517), PubMed: [15741263](http://www.uniprot.org/citations/15741263)). This includes upregulating lipid metabolism and mitochondrial oxygen utilization by activating the AMP-activated protein kinase (AMPK), and increasing energy expenditure by acting via MAPK11 to promote the UCP1-dependent thermogenesis of brown adipose tissue (PubMed: [22307324](http://www.uniprot.org/citations/22307324), PubMed: [18835931](http://www.uniprot.org/citations/18835931), PubMed: [21672517](http://www.uniprot.org/citations/21672517), PubMed: [15741263](http://www.uniprot.org/citations/15741263)). Binds the clearance receptor NPR3 which removes the hormone from circulation (PubMed: [1672777](http://www.uniprot.org/citations/1672777)).

Research Area

Image Data



Western blot analysis of ANP expression in PC3 cell lysate.

Note

For research use only.