

Polyclonal Antibody to Atrial Natriuretic Peptide (ANP)

Atrial Natriuretic Peptide

Catalog # AP74577

Product Information

Application	WB
Primary Accession	P07501
Host	Rabbit
Clonality	Polyclonal
Calculated MW	16518

Additional Information

Gene ID	281355
Other Names	ANH; ANF; CDD; Atrial Natriuretic Factor; Atrial Natriuretic Hormone; Atriopeptin; Cardionatrine; Cardiodilatin
Target/Specificity	Bos taurus; Bovine (Cattle)
Dilution	WB~~Western blotting: 0.2-2 μ g/mL;1:250-2500 Immunohistochemistry: 5-20 μ g/mL;1:25-100 Immunocytochemistry: 5-20 μ g/mL;1:25-100 Optimal working dilutions must be determined by end user.
Format	PBS, pH7.4, containing 0.02% NaN ₃ , 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

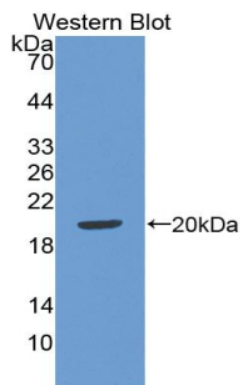
Name	NPPA
Function	[Atrial natriuretic peptide]: Hormone that plays a key role in mediating cardio-renal homeostasis, and is involved in vascular remodeling and regulating energy metabolism (By similarity). Acts by specifically binding and stimulating NPR1 to produce cGMP, which in turn activates effector proteins, such as PRKG1, that drive various biological responses (By similarity). 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 (By similarity). Also involved in inhibiting cardiac remodeling and cardiac hypertrophy by inducing cardiomyocyte apoptosis and attenuating the growth of cardiomyocytes and fibroblasts (By similarity). Plays a role in female pregnancy by 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 (By similarity). This includes up-regulating 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 (By similarity). Binds the clearance receptor NPR3 which removes the hormone from circulation (By similarity).

Cellular Location

[Long-acting natriuretic peptide]: Secreted {ECO:0000250|UniProtKB:P01160}. Note=Detected in blood {ECO:0000250|UniProtKB:P01160} [Kaliuretic peptide]: Secreted {ECO:0000250|UniProtKB:P01160}. Note=Detected in blood {ECO:0000250|UniProtKB:P01160} [Atrial natriuretic peptide]: Secreted {ECO:0000250|UniProtKB:P01160}. Perikaryon {ECO:0000250|UniProtKB:P01160}. Cell projection {ECO:0000250|UniProtKB:P01160}. Note=Detected in blood. Detected in urine in one study. However, in another study, was not detected in urine. Detected in cytoplasmic bodies and neuronal processes of pyramidal neurons (layers II-VI) (By similarity). Increased secretion in response to the vasopressin AVP (By similarity). Likely to be secreted in response to an increase in atrial pressure or atrial stretch. In kidney cells, secretion increases in response to activated guanylyl cyclases and increased intracellular cAMP levels. Plasma levels increase 15 minutes after a high-salt meal, and decrease back to normal plasma levels 1 hr later (By similarity) {ECO:0000250|UniProtKB:P01160, ECO:0000250|UniProtKB:P01161}

Images



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