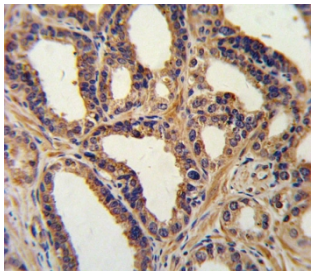
NPPA Antibody / Atrial Natriuretic Peptide/Factor Antibody (F54517)

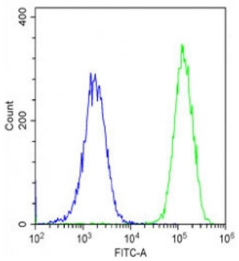
Catalog No.	Formulation	Size
F54517-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54517-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

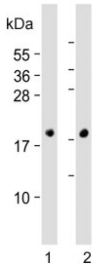
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity purified
UniProt	P01160
Applications	Western blot: 1:500-1:2000 Immunohistochemistry (FFPE): 1:25 Flow cytometry: 1:25 (1x10e6 cells)
Limitations	This NPPA Antibody / Atrial Natriuretic Peptide/Factor Antibody is available for research use only.



NPPA Antibody Human Prostate Carcinoma IHC. Immunohistochemistry staining of FFPE human prostate carcinoma tissue using NPPA antibody demonstrates predominantly cytoplasmic staining within gland-forming epithelial tumor cells, consistent with expression of Natriuretic Peptide Precursor A (NPPA), the precursor of Atrial Natriuretic Peptide (ANP/ANF). NPPA is a peptide hormone precursor that participates in endocrine signaling pathways regulating cardiovascular homeostasis, fluid balance, and intercellular communication. The observed epithelial staining pattern supports the utility of NPPA antibody for studies of peptide hormone expression, endocrine signaling networks, and natriuretic peptide biology in normal and neoplastic tissues. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



NPPA Antibody RD Cell Flow Cytometry. Flow cytometric analysis of fixed and permeabilized human RD cells stained with NPPA antibody demonstrates a pronounced rightward shift of the green histogram (NPPA antibody) relative to the blue histogram (isotype control), consistent with expression of Natriuretic Peptide Precursor A (NPPA). NPPA encodes the precursor protein for Atrial Natriuretic Peptide (ANP/ANF), a peptide hormone involved in cardiovascular homeostasis, endocrine signaling, and regulation of fluid balance. The distinct separation between the NPPA-stained and control populations supports specific detection of intracellular NPPA and demonstrates the utility of this antibody for flow cytometric studies of natriuretic peptide biology and hormone-related signaling pathways. Cells were fixed, permeabilized, and stained prior to analysis.



NPPA Antibody Human Fetal Heart and Mouse Heart WB. Western blot analysis of human fetal heart and mouse heart tissue lysates using NPPA antibody demonstrates distinct immunoreactive bands at approximately 17 kDa in both samples, consistent with the expected molecular weight of Natriuretic Peptide Precursor A (NPPA). NPPA is the precursor protein for Atrial Natriuretic Peptide (ANP/ANF), a cardiac-derived hormone that regulates cardiovascular homeostasis, fluid balance, and endocrine signaling pathways. The conserved detection of NPPA in both human and mouse cardiac tissues supports the utility of this antibody for studies of cardiac endocrine biology, natriuretic peptide signaling, and cardiovascular regulation. Predicted molecular weight: ~17 kDa.

Description

NPPA Antibody / Atrial Natriuretic Peptide/Factor Antibody is designed for the detection and study of NPPA (Natriuretic Peptide Precursor A), the gene encoding Atrial Natriuretic Peptide (ANP), also historically known as Atrial Natriuretic Factor (ANF). NPPA is expressed predominantly in cardiac tissue and serves as the precursor for one of the most important peptide hormones involved in cardiovascular and endocrine regulation. Through its processed peptide products, NPPA contributes to signaling pathways that coordinate circulatory homeostasis, fluid balance, and communication between the cardiovascular, renal, and endocrine systems.

NPPA encodes a precursor molecule that undergoes proteolytic processing to generate biologically active natriuretic peptides. These hormones function as endocrine signaling mediators that help regulate physiologic adaptation and maintain systemic homeostasis. As a result, NPPA occupies a central position within molecular pathways that connect cardiac activity with broader regulatory mechanisms throughout the body. The biologic significance of NPPA has made it one of the most extensively studied genes associated with cardiac endocrine function.

Research involving NPPA has contributed substantially to understanding the endocrine role of the heart. In addition to its mechanical function, cardiac tissue serves as an important source of hormone production, with NPPA-derived peptides acting as signaling molecules that influence multiple organ systems. The ability of NPPA to integrate cardiovascular and endocrine processes has established it as a valuable marker in studies of cardiac biology, hormone signaling, and physiologic regulation.

Beyond cardiovascular research, NPPA has attracted significant interest in developmental biology, tissue homeostasis, endocrine communication, and peptide hormone signaling. Expression of NPPA and its associated signaling pathways is frequently examined in investigations focused on cardiac development, adaptive physiologic responses, and regulation of inter-organ communication. These diverse functions continue to make NPPA an important target for both basic and translational research applications.

NPPA Antibody / Atrial Natriuretic Peptide/Factor Antibody is useful for investigating cardiac endocrine biology, natriuretic peptide signaling, cardiovascular physiology, hormone-mediated regulation, and systemic homeostasis. Researchers utilize NPPA Antibody reagents to evaluate protein expression patterns and study molecular mechanisms governing endocrine communication, cardiovascular adaptation, and peptide hormone function.

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

Application Notes

The stated application concentrations are suggested starting points. Titration of the NPPA Antibody / Atrial Natriuretic Peptide/Factor Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 30-56 from the human protein was used as the immunogen for the NPPA antibody.

Storage

Aliquot the NPPA antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

NPPA Antibody, Atrial Natriuretic Peptide Antibody, Atrial Natriuretic Factor Antibody, ANP Antibody, ANF Antibody, Natriuretic Peptide Precursor A Antibody, Cardiac Hormone Antibody

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