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Natriuretic Peptide Receptor A Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8111A

Product Information

Application	IHC-P, E
Primary Accession	P16066
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	118919
Antigen Region	1-30

Additional Information

Gene ID	4881
Other Names	Atrial natriuretic peptide receptor 1, Atrial natriuretic peptide receptor type A, ANP-A, ANPR-A, NPR-A, Guanylate cyclase A, GC-A, NPR1, ANPRA
Target/Specificity	This Natriuretic Peptide Receptor A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human Natriuretic Peptide Receptor A.
Dilution	IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Natriuretic Peptide Receptor A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NPR1 (HGNC:7943)
Synonyms	ANPRA
Function	Receptor for the atrial natriuretic peptide NPPA/ANP and the brain natriuretic peptide NPPB/BNP which are potent vasoactive hormones playing a key role in cardiovascular homeostasis (PubMed:39543315). Plays an

essential role in the regulation of endothelial cell senescence and vascular aging (PubMed:36016499). Upon activation by ANP or BNP, stimulates the production of cyclic guanosine monophosphate (cGMP) that promotes vascular tone and volume homeostasis by activation of protein kinase cGMP-dependent 1/PRKG1 and subsequently PRKAA1, thereby controlling blood pressure and maintaining cardiovascular homeostasis (PubMed:36016499).

Cellular Location Membrane; Single-pass type I membrane protein.

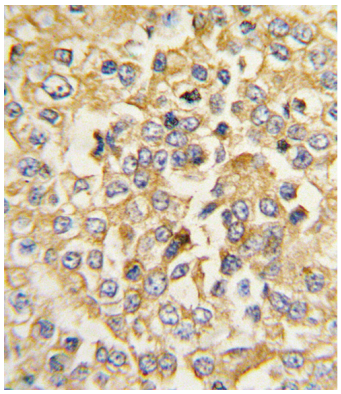
Background

ANPA is a receptor for atrial natriuretic peptide. It exhibits guanylate cyclase activity on binding of ANF. There seem to be at least three ANP receptors: two with guanylate cyclase activity (ANPA and ANPB) and one (ANPC) which is probably responsible for the clearance of ANP from the circulation without a role in signal transduction. This Type I membrane protein belongs to the adenylyl cyclase class-4/guanylyl cyclase family and contains 1 protein kinase-like domain.

References

Takahashi, Y., et al., Biochem. Biophys. Res. Commun. 246(3):736-739 (1998). Pardhasaradhi, K., et al., Cell. Mol. Neurobiol. 14(1):1-7 (1994). Lowe, D.G., et al., EMBO J. 8(5):1377-1384 (1989).

Images



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with Natriuretic Peptide Receptor A (NPR1/ANPA) antibody (N-term) (Cat. #AP8111a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Expression of natriuretic peptide-activated guanylate cyclases by cholinergic and dopaminergic amacrine cells of the rat retina.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.