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Natriuretic Peptide Receptor B Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58002

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	P20594
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	117022
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NPR-B
Epitope Specificity	101-200/1047
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Single-pass type I membrane protein.
SIMILARITY	Belongs to the adenylyl cyclase class-4/guanylyl cyclase family.Contains 1 guanylate cyclase domain.Contains 1 protein kinase domain.
Post-translational modifications	Phosphorylation of the protein kinase-like domain is required for full activation by CNP.
DISEASE	Defects in NPR2 are the cause of acromesomelic dysplasia Maroteaux type (AMDM) [MIM:602875]. Acromesomelic chondrodysplasias are rare hereditary skeletal disorders characterized by short stature, very short limbs, and hand/foot malformations. The severity of limb abnormalities increases from proximal to distal with profoundly affected hands and feet showing brachydactyly and/or rudimentary fingers (knob-like fingers). AMDM is an autosomal recessive form characterized by axial skeletal involvement with wedging of vertebral bodies. In AMDM all skeletal elements are present but show abnormal rates of linear growth.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	NPR2 encodes natriuretic peptide receptor B, one of two integral membrane receptors for natriuretic peptides. Both NPR1 and NPR2 contain five functional domains: an extracellular ligand binding domain, a single membrane spanning region, and intracellularly a protein kinase homology domain), a helical hinge region involved in oligomerization, and a carboxyl terminal guanylyl cyclase catalytic domain. NPR2 is the primary receptor for C type natriuretic peptide (CNP), which upon ligand binding exhibits greatly increased guanylyl cyclase activity.

Additional Information

Gene ID	4882

Other Names	Atrial natriuretic peptide receptor 2, 4.6.1.2, Atrial natriuretic peptide receptor type B, ANP-B, ANPR-B, NPR-B, Guanylate cyclase B, GC-B, NPR2, ANPRB
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	NPR2
Synonyms	ANPRB
Function	Receptor for the C-type natriuretic peptide NPPC/CNP hormone. Has guanylate cyclase activity upon binding of its ligand. May play a role in the regulation of skeletal growth.
Cellular Location	Cell membrane; Single-pass type I membrane protein