

Natriuretic Peptide Receptor B Rabbit pAb

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Product Information

Application IHC-P, IHC-F, IF, E

Primary Accession P20594

Reactivity Human, Mouse, Rat **Predicted** Chicken, Pig, Horse

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.

SUBCELLULAR LOCATION

SIMILARITY

0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Membrane; Single-pass type I membrane protein.

Belongs to the adenylyl cyclase class-4/guanylyl cyclase family. Contains 1

guanylate cyclase domain. Contains 1 protein kinase domain.

Post-translational modifications DISEASE

Phosphorylation of the protein kinase-like domain is required for full

activation by CNP.

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/IF=1:100-500,IF=1:100-500,ELISA=1:500

0-10000

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

Background

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