

Product datasheet for RC220459

Natriuretic Peptide Receptor B (NPR2) (NM_003995) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Natriuretic Peptide Receptor B (NPR2) (NM_003995) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Natriuretic Peptide Receptor B
Synonyms:	AMDM; ANPb; ANPRB; ECDM; GC-B; GCB; GUC2B; GUCY2B; NPRB; NPRBi; SNSK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220459 representing NM_003995. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTGACTG
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 TACAAGGATGACGACGATAAGGTTAAACGGCCGGC

Protein Sequence:

>Peptide sequence encoded by RC220459
 Blue=ORF Red=Cloning site Green=Tag(s)

MALPSLLLLVAALAGVPRPPGARNLTLAVVLPEHNL SYAWAWPRVGPVALAVEALGRALPVDLRFVSS
 ELEGACSEYLAPLSAVDLKLYHDPDLLLGPVCYVPAASVARFASHWRLPLLTAGAVASGFSKNDHYRT
 LVRTGPSAPKLGEFVVTLHGHNWNTARAALLYLDARTDDRPHYFTIEGVFEALQGSNLSVQHVVYAREP
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 ELVLLMERCWAQDPAERPFDGQIKGFIRRFNKEGGSILDNLLRMEQYANNLEKLVVEERTQAYLEEKR
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 DNFDVYKVVETIGDAYMVVSGLPGRNGQRHAPFIARMALALLDAVSSFIRHRPHDQLRLRIGVHTGPVC
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 TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg4103_h05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_003995

ORF Size: 3141 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

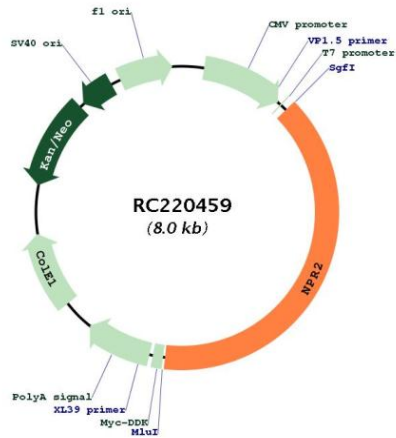
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

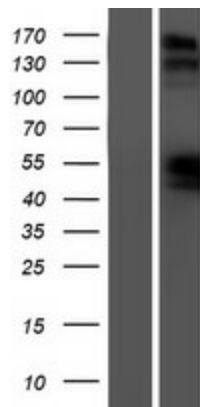
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq Size:	3447 bp
RefSeq ORF:	3144 bp
Locus ID:	4882
UniProt ID:	P20594
Cytogenetics:	9p13.3
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Purine metabolism, Vascular smooth muscle contraction
MW:	117 kDa
Gene Summary:	This gene 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. The protein is the primary receptor for C-type natriuretic peptide (CNP), which upon ligand binding exhibits greatly increased guanylyl cyclase activity. Mutations in this gene are the cause of acromesomelic dysplasia Maroteaux type. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC220459



Western blot validation of overexpression lysate (Cat# [LY418262]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220459 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).