

Product datasheet for **RG220459**

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:	TurboGFP
Symbol:	Natriuretic Peptide Receptor B
Synonyms:	AMDM; ANPb; ANPRB; ECDM; GC-B; GCB; GUC2B; GUCY2B; NPRB; NPRBi; SNSK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220459 representing NM_003995 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGCCATCACTCCTGCTGTTGGTGGCAGCCCTGGCAGGTGGGGTGCCTCTCCGGGGCGCGGA
ACCTGACGCTGGCGGTGGTGTGCCAGAACACAACCTGAGCTATGCCTGGGCTGGCCACGGGTGGGACC
CGCTGTGGCACTAGCTGTGGAGGCTCTGGGCCGGGCACTGCCCTGGACCTGCGGTTTGTACGCTCCGAA
CTGGAAGGCGCCTGCTCTGAGTACCTGGCACCCTGAGCGCTGTGGACCTCAAGCTGTACCATGACCCCG
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TCCCTGCTGACTGCGGGTGTGTGGCCTCTGGTTTTTCGGCTAAGAATGACCATTATCGTACCCTGGTT
CGCACTGGCCCTCTGCTCCCAAGCTGGGTGAGTTTGTGGTGACACTACACGGGCACTTCAATTGGACTG
CCCGTGTGCCTTGTGTACCTGGATGCTCGCACAGATGACCGGCCTCACTACTTACCATTGAGGGCGT
CTTTGAGGCCCTGCAGGGCAGCAACCTCAGTGTGCAGCACCAGGTGTATGCCCGAGAGCCAGGGGGCCCC
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ATGAGATCCTGCTTCAGGCCAGAGGGAGAATCTGACCAATGGGGATTATGTCTTCTTTTACCTGGATGT
CTTTGGGGAGAGTCTCCGTGCAGGCCACACGTGCTACAGGCCGGCCCTGGCAGGACAATCGCACCCGG
GAACAGGCCAGGCCCTCAGAGAGGCCTTTCAGACTGTATTGGTGATCAGTACCGAGAACCCCAATC
CTGAGTATCAGGAATCCAGAATCGTCTGCTGATAAGAGCCCGGAAGACTTTGGTGTGGAGCTGGGCC
TTCCCTGATGAACCTCATCGCTGGCTGTTCTATGATGGGATCCTGCTATATGCTGAAGTCTGAATGAG
ACAATACAGGAAGGAGGCACCCGGGAGGATGGACTTCAATTGTGGAAAAGATGCAGGGACGAAGATATC
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ACGACCCATCCTGTGATAAACTCCACTTCAACCCTGGCAATTGTGGCTCTGGGCACAGGAATCACCTT
CATCATGTTTGGTGTTCAGCTTCTAATTTCCGAAAGCTGATGCTGGAGAAGGAGCTGGCTAGCATG



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TTGTGGCGTATTCGCTGGGAAGAACTGCAGTTTGGCAACTCAGAGCGTTATCACAAAGGTCAGGCAGTC
 GCCTCACACTGTCGCTGCGGGGATCCAGTTACGGCTCGCTCATGACAGCCCATGGGAAATACCAGATCTT
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 ATGGCTTTTGTGCTCAAAATCACAGACTATGGCCTGGCCAGCTTCCGATCAACTGCTGAACCTGATGACAG
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 GCTTACATGGTGGTATCTGGCCTCCAGGCCGAAATGGTCAACGCCATGCACCAGAAATGCTCGTATGG
 CCCTAGCATTACTAGATGCAGTTTCTTCTTTCGCATCCGCCACCCAGCCCATGACCAGCTGAGGCTACG
 CATAGGGTCCATACTGGGCCAGTCTGTGCTGGGGTGTGGCCTGAAGATGCCCGTTATTGTCTTTTT
 GGAGACACAGTGAACACTGCTTCTCGAATGGAGTCTAATGGTCAAGCGCTGAAGATCCATGTCTCCTCTA
 CCACCAAGGATGCCCTAGATGAGCTAGGATGCTTCCAGCTAGAGCTTCGGGGGGATGTGGAAATGAAGGG
 AAAAGGAAAGATGCCAACATACTGGCTCTTAGGAGAGCGGAAAGGACCTCCTGGACTCCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220459 representing NM_003995
 Red=Cloning site Green=Tags(s)

MALPSLLLLVAALAGVPRPPGARNLTLAVVLPENLSYAWAWPRVGPVALAVEALGRALPVDLRFVSSE
 LEGACSEYLAPLSAVDLKLYHDPDLLLGPVCVYPAASVARFASHWRLPLLTAGAVASGFSKNDHYRTL
 RTGPSAPKLGEFVVLHGHFNWTAARAALLYL DARTDDRPHYFTIEGVFEALQGSNL SVQHVVYAREPGP
 EQATHFIRANGRIYVICGPLEMLHEILLQAQRENLTNGDYVFFYLDVFGESLRAGPTRATGRPWQDNRT
 EQAALREAFQTVLVITYREPPNPEYQEFQNRLLIRAREDFGVELGPSLMNLIAGCFYDGILLYAEVLNE
 TIQEGGTREDGLRIVEKMQGRRYHGVTGLVMDKNDRETFVLWAMGDLD SGDFQPAAHYSGAEKQIWW
 TGRPIPWVKGAPPSDNPPCAFDDLPSCDKTPLSTLAIIVALGTGITFIMFGVSSFLIFRKLMLKELASM
 LWRIRWEELQFGNSERYHKGAGSRLTSLRGSSYGLMTHGKYQIFANTGHFKGNVVAIKHVNKKRIEL
 TRQVLFELKHMVDVQFNHLTRFIGACIDPPNICIVTEYCPRGLQDILENDSINLDWMFRYSLINDLVKG
 MAFLHNSIISSHGSLKSSNCVVD SRFVLKITDYGLASFRSTAEPD DSHALYAKKLWTAPELLSGNPLPTT
 GMQKADVYSFGIILQEIALRSGPFYLEGLDLSPEIVQKVRNGRQPYFRPSIDRTQLNEELVLLMERCWA
 QDPAERPFDGQIKGFIIRRFNKEGGT SILDNLLRMEQYANNLEKLV EERTQAYLEEKRAEALLYQILPH
 SVAEQLKRGETVQAEAFDSVTIYFSDIVGFTALSAESTPMQVVTLLNDLYTCFDAIIDNFDVYK VETIGD
 AYMVVSGLPGRNGQRHAP E IARMALALLDAVSSFRIRHRPHDQLRLRIGVHTGPVCAGVVGLKMPRYCLF
 GDTVNTASRMESNGQALKIHVSSTTKDALDELGCFQLELRGDVEMKGGKMRTYWLLGERKGP PGLL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Reconstitution Method:

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.

RefSeq: [NM_003995.3](#), [NP_003986.2](#)

RefSeq Size: 3447 bp

RefSeq ORF: 3144 bp

Locus ID: 4882

UniProt ID: [P20594](#)

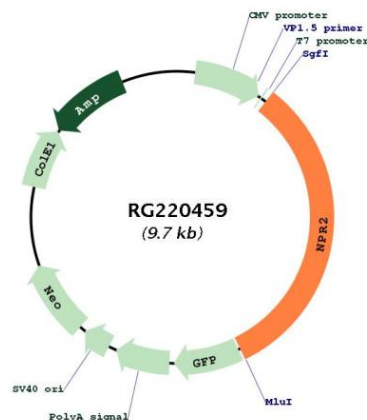
Cytogenetics: 9p13.3

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Purine metabolism, Vascular smooth muscle contraction

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 RG220459