

## Product datasheet for SC117646

### Natriuretic Peptide Receptor B (NPR2) (NM\_003995) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Natriuretic Peptide Receptor B (NPR2) (NM_003995) Human Untagged Clone
Tag:	Tag Free
Symbol:	Natriuretic Peptide Receptor B
Synonyms:	AMDM; ANPb; ANPRB; ECDM; GC-B; GCB; GUC2B; GUCY2B; NPRB; NPRBi; SNSK
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_003995 edited  
 GAATTCGGCACGAGCCCAAGTTCTGGGGCGGTGGGGCTGCTGCTTTATCCCCATGGCGC  
 TGCCATCACTCCTGCTGTTGGTGGCAGCCCTGGCAGGTGGGGTGGCTCCTCCCGGGCGC  
 GGAACCTGACGCTGGCGTGGTGTGCCAGAACAACCTGAGCTATGCCTGGCCCTGGC  
 CACGGGTGGGACCCGCTGTGGCACTAGCTGTGGAGGCTCTGGGCCGGGCACTGCCGTGG  
 ACCTGCGGTTTGTGAGCTCCGAAGTGAAGGCGCCTGCTCTGAGTACCTGGCACCCTGA  
 GCGCTGTGGACCTCAAGCTGTACCATGACCCCGACCTGCTGTTAGGTCCCGGTTGCGTGT  
 ACCCTGCTGCCTCTGTGGCCCGCTTTCCTCCACTGGCGCCTTCCCTGCTGACTGCGG  
 GTGCTGTGGCCTCTGGTTTTTCGGCTAAGAATGACCATTATCGTACCCTGGTTTCGACTG  
 GCCCTCTGCTCCCAAGCTGGGTGAGTTTGTGGTGACACTACACGGGCACTTCAATTGGA  
 CTGCCCGTGTGCTTGTGACCTGGATGCTCGCACAGATGACCGGCCTCACTACTTCA  
 CCATCGAGGGCGTCTTTGAGGCCCTGCAGGGCAGCAACCTCAGTGTGCAGCACCAGGTGT  
 ATGCCCGAGAGCCAGGGGGCCCCGAGCAGGCCACCCACTTCATCCGGGCAACCGGGCGCA  
 TTGTGTATATCTGCGGCCCTCTGGAGATGCTGCATGAGATCCTGCTTCAGGCCAGAGGG  
 AGAATCTGACCAATGGGGATTATGTCTTCTTTACCTGGATGCTTTGGGGAGAGTCTCC  
 GTGCAGGCCCCACAGTGTACAGGCCGGCCCTGGCAGGACAATCGCACCCGGGAACAGG  
 CCCAGGCCCTCAGAGAGGCCCTTTCAGACTGTATTGGTGATCACGTACCGAGAACCCCAA  
 ATCCTGAGTATCAGGAATCCAGAATCGTCTGCTGATAAGAGCCCGGGAAGACTTTGGTG  
 TGGAGCTGGGCCCTTCCCTGATGAACCTCATCGCTGGCTGCTTCTATGATGGGATCCTGC  
 TATATGCTGAAGTCTGAATGAGACAATACAGGAAGGAGGACCCCGGAGGATGGACTTC  
 GAATTGTGAAAAAGATGCAGGGACGAAGATATCACGGTGAACCTGGGCTGGTTGTCATGG  
 ACAAGAACAATGACCGAGAGACTGACTTTGTCCTCTGGGCCATGGGAGACCTGGATTCTG  
 GGGACTTTCAGCCTGCAGCCCACTACTCGGGAGCTGAGAAGCAGATTTGGTGGACGGGAC  
 GGCCTATCCCTGGGTGAAGGGGGCTCCTCCCTCGGACAATCCCCCTGTGCCTTTGACT  
 TGGACGACCCATCCTGTGATAAACTCCACTTTCAACCCTGGCAATTGTGGCTCTGGGCA  
 CAGGAATCACCTTCATCATGTTTGGTGTTCAGCTTCTAATTTCCGAAAGCTGATGC  
 TGGAGAAGGAGCTGGCTAGCATGTTGTGGCGTATTCGCTGGGAAGAACTGCAGTTTGGCA



[View online »](#)

ACTCAGAGCGTTATCACAAAGGTCAGGCAGTCGCCTCACACTGTCGCTGCGGGGATCCA  
 GTTACGGCTCGCTCATGACAGCCCATGGGAAATACCAGATCTTTGCCAACACCGGTCACT  
 TCAAGGAAAATGTTGTGCCATCAAACATGTGAATAAGAAGCGCATTGAGCTGACCCGGC  
 AGGTTCTGTTTGAACCAACATATGAGAGATGTTCAAGTCAACCATCTCACTCGTTCA  
 TTGGCGCTGCATAGACCCTCCCAACATTTGCATTGTCACTGAATATTGCCTCGTGGGA  
 GTTTACAGGATATTCTAGAAAATGACAGCATCAACTGGACTGGATGTTTCGTTATTAC  
 TCATTAATGACCTTGTAAAGGGCATGGCCTTTCCACAACAGCATTATTTTCATCGCATG  
 GGAGTCTCAAGTCTCAACTGTGTGGTGGATAGTCGTTTTGTGCTCAAAATCACAGACT  
 ATGGCCTGGCCAGCTTCCGATCAACTGCTGAACCTGATGACAGCCATGCCCTCTATGCCA  
 AGAAGCTGTGGACTGCCCCAGAAGTCTCAGTGGGAACCCCTTGCCAACACAGGCATGC  
 AGAAGGCTGACGTCTATAGCTTTGGGATCATCCTGCAGGAGATAGCACTTCGAGTGGTC  
 CTTTCTACTTGGAGGGCTGGACCTCAGCCCCAAAGAGATTGTCCAGAAGGTACGAAATG  
 GTCAGCGGCCATATTTCCGGCAAGCATTGACCGACCCAACTGAATGAAGAGCTAGTTT  
 TGCTGATGGAGCGATGTTGGGCTCAGGACCCAGCTGAGCGCCAGACTTTGGACAGATTA  
 AGGGCTTCATTCGCGCTTTAAACAAGGAGGGTGGCACCAGCATATTGGACAACCTCCTGC  
 TGGCATGGAACAGTATGCCAATAACTTGGAGAAGCTGGTGGAGGAACGCACACAGGCCT  
 ATCTGGAGGAAAACGCAAGGCTGAAGCTGCTCTACCAAACTCTACCCATTCAAGTGG  
 CAGAGCAGTTAAAACGGGGAGAGACTGTACAGGCTGAGGCCTTTGACAGTGTACCATCT  
 ACTTCAGTGACATTGTTGGCTTCACAGCATTGTGACGAGAGACACCCCATGCAGGTAG  
 TGACACTTCTTAATGACCTGTATACCTGCTTTGATGCCATAATTGACAACCTTTGATGCT  
 ACAAGTGGAGACGATTGGGGATGCTTACATGGTGGTATCTGGCTCCAGGCGGAAATG  
 GTCAACGCCATGCACCAGAAATGCTCGTATGGCCTAGCATTACTAGATGCAGTTTCTT  
 CCTTTCCGATCCGCCACCGACCCCATGACCAGCTGAGGCTACGCATAGGGGTCCACTG  
 GGCCAGTCTGTGCTGGGGTTGTTGGCCTGAAGATGCCCGTTATTGTCTTTTTGGAGACA  
 CAGTGAACACTGCTTCTCGAATGGAGTCTAATGGTCAAGCGCTGAAGATCCATGTCTCT  
 CTACCACCAAGGATGCCCTAGATGAGCTAGGATGCTTCCAGCTAGAGCTTCGGGGGATG  
 TGGAAATGAAGGGAAAAGGAAAGATGCGAACATACTGGCTCTTAGGAGAGCGGAAAGGAC  
 CTCCTGGACTCCTGTAACCCCCATTCTTCCAAGTCAGATAGTCTTCTGCTGCTGGTAC  
 CTGGGTGGGCAATGGCCACCATGTCTGCACACACCAGAAATGGACATTTTCATATGCAAT  
 GAAAAACAGCCACAAAAAACCTACCTTATATGGAAGTTGTAGCCCTCTGCAGCTCAGCC  
 CTGTACATATACCTGTCCCTCTCTGGCTTGGTCCCCTTCTCCCTACTTTCTGTAATAT  
 CTGTATCTAAACCAGAATATTTTGGTCAAATATAAAACAATAATAAAAAAAGTTCTGATG  
 TCAAAAAAAAAAAAAAAAAACTCGA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003995 unedited  
 NAAAATTGGCAGCCTGGCAGTGTGGTGCCTCCCGGGCGGGNAACCTGAGCTGGCGG  
 TGGTGCTGCCAGAACACAACCTGAGCTATGCCTGGCCTGGCCACGGGTGGGACCCGCTG  
 TGGCACTAGCTGTGGAGGCTCTGGGCCGGCACTGCCCGTGGACCTGCGGTTTGTGAGCT  
 CCGAACTGGAAGGCGCCTGCTCTGAGTACCTGGCACCGCTGAGCGCTGTGGACCTCAAGC  
 TGTACCATGACCCCGACCTGCTGTTAGGTCCCAGTTGCGTGTACCCTGCTGCCTCTGTGG  
 CCCGCTTTGCCTCCCACTGGCGCCTTCCCCTGCTGACTGCGGGTGTGTGGCCTCTGGTT  
 TTTTCGGTAAGAATGACCATTATCGTACCCTGGTTCGCACTGGCCCTCTGCTCCCAAGC  
 TGGGTGAGTTTGTGGTGAACACTACACGGGCACTTCAATTGGACTGCCCGTGTGCCTTGC  
 TGTACCTGGATGCTCGCACAGATGACCGGCCTCACTACTTACCATCGAGGGCGTCTTTG  
 AGGCCCTGCAGGGCAGCAACCTCAGTGTGCAGCACCAGGTGTATGCCGAGAGCCAGGGG  
 GCCCGGAGCAGGCCACCCACTTCCATCCGGGCCAACGGGCGCATTGTGTATATCTGCGGCC  
 CTCTGGAGATGCTGCATGAGATCCTGCTTCCAGGCCAGAGGGAGAATCTGACCAATGGGG  
 ATTATGCTTCTTTTACCTGGATGCTTTTGGGAGAGTCTCCGTGCAGGGCCACACGCTG  
 CTACAGGCCGGCCCTGGCAGGACAATCGCACCCGGGAACAGGCCAGGCCCTCAGAGAGG  
 CCTTTCAGACTGTATTGGTGTACAGTACCAGAACCCCAATCTGAGTATCANGAATT  
 CAGAATCGTC

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_003995 unedited NNNAATTACTGTGNACCGCGCCCAATCTANGATCGAGTTTTTTTTTTTTTTTTGAC ATCAGAACTTTTTTATTATTGTTTTATTTGACCAAAATATTCTGGTTTAGATACAGA TATTTACAGAAAGTAGGGAGGAAGGGGACCAAGCCAGAGAGGGACAGGTATATGTACAGG GCTGAGCTGCAGAGGGCTACAACCTCCATATAAGGTAGTTTTTTTTGTGGCTGTTTTCCA TTGCATATGAAAATGTCCATTTCTGGTGTGTGCAGACATGGTGGCCATTGCCACCCAGG TACCAGCAGCAGAAGACTATCTGACTTGGAAAGAATGGGGGTTTACAGGAGTCCAGGAGG TCCTTTCCGCTCTCCTAAGAGCCAGTATGTTTCGCATCTTTCCTTTCCCTTCATTTCCAC ATCCCCCGAAGCTCTAGCTGGAAGCATCTAGCTCATCTAGGGCATCCTTGGTGGTAGA GGAGACATGGATCTTCAGCGCTTGACCATTAGACTCCATTGAGAAAGCAGTGTTCACTGT GTCTCCAAAAGACAATAACGGGGCATCTTCAGGCCAACACCCAGCACAGACTGGCCC AGTATGGACCCCTATGCGTAGCCTCAGCTGGTCATGGGGTCGGTGGCGGATGCGAAAGGA AGAAAATGCATCTAGTAATGCTAGGGCCATACGAGCAATTTCTGGTGCATGGCGTTGACC ATTTCCGGCTGGGAGGCCAGATACCACCATGTAAGCATCCCCAATCGTCTCCACCTTGTA GACATCAAAGTTGTCAATTATGGCATCAAAGCAGGTATACAGGTACATTAAGAAGTGCAC TACCTGCATGGGGGTGCTCTGCTGACAATGCTGTGAAGCCACATGCTACTGAATAGAT GGTACTACTGTCAAAGCCTCAGC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_003995
<b>Insert Size:</b>	3300 bp
<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_003995.3</a> , <a href="#">NP_003986.2</a>
<b>RefSeq Size:</b>	3447 bp

RefSeq ORF:	3144 bp
Locus ID:	4882
UniProt ID:	<a href="#">P20594</a>
Cytogenetics:	9p13.3
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Purine metabolism, Vascular smooth muscle contraction
Gene Summary:	<p>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]</p>