

## Product datasheet for **RC230368**

### Noradrenaline transporter (SLC6A2) (NM\_001172504) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Noradrenaline transporter (SLC6A2) (NM_001172504) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Noradrenaline transporter
Synonyms:	NAT1; NET; NET1; SLC6A5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC230368 ORF sequence, **codon optimized**.  
**Due to the complexity of NM\_001172504, the ORF clone is codon optimized for mammalian Expression.**  
**The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.**

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTGCTCGCGGAATGAATCCACAAGTGCAGCCTGAGAACAATGGCGTGATACAGGCCCGAGCAGC  
 CCCTGAGGGCACGAAAACCGCGAACTCCTGGTTGTTAAGGAACGCAATGGTGTCAATGTCTTCTGGC  
 ACCACGCGATGGCGATGCCAGCCAGAGAGACGTGGGGCAAGAAAATCGATTTTTTGTCTTCAGTGGT  
 GGGTTTGGCGTGATCTGGCAAATGTGTGGCGATTCCATACCTGTGTTACAAAAATGGCGGAGGGGCTT  
 TCTTGATCCCCTACACCTCTTTCTGATAATCGCTGGGATGCCGCTGTTCTATATGGAGCTCGCCCTGGG  
 CCAGTACAATCGCGAAGGTGCCGCCACAGTCTGAAAAATATGCCCGTTTTCAAAGGCGTTGGCTATGCT  
 GTCATCCTGATCGCCCTGACGTTGGCTTCTACTACAACGTATCATCGCCTGGTCACTCTACTACCTCT  
 TCTCCTCTTACCCCTCAACCTGCCCTGGACCGACTGTGGCCACACCTGGAACAGCCCCAACTGTACCGA  
 CCCAAGCTCCTCAATGGCTCCGTGCTTGGCAACCACCAAGTACTCCAAGTACAAGTTCACGCCGGCA  
 GCCGAGTTTTATGAGCGTGGTGTCTGCACCTTACGAGAGCAGCGGGATTCATGACATCGGCCCTGCCCC  
 AGTGGCAGCTCTTGCTCTGTCTGATGGTCGTGTCATCGTCTTGTATTTAGCCTCTGAAAAGGGGTGAA  
 GACATCAGGAAAGGTGGTGTGGATCACAGCCACGCTGCCTACTTCGTGCTGTTCTGCTCTGGTCCAT  
 GCGTCAAGCTGCCCGGAGCCTCAATGGCATCAATGCCTACCTGCACATCGACTTCTACCGCTTGAAG  
 AGGCCACGGTATGGATTGATGCCCAACTCAGATATTTTTTCTTGGGGCTGGATTTGGAGTATTGAT  
 TGCATTTGCCAGTTACAACAAATTTGACAACAACGTTACAGGGATGCCCTGCTGACCAGCAGCATCAAC  
 TGTATCACAGCTTCGTCTCTGGGTTCCGCATCTTCTCCATCCTTGTTACATGGCCATGAACACAAGG  
 TCAACATTGAGGATGTGGCCACAGAAGGAGCTGGCCTAGTGTTCATCCTGTATCCAGAGGCCATTCTAC  
 CCTGTCTGGATCTACATTCTGGGCTGTTGTGTTTTTCTGCATGCTCCTGGCGCTGGGCTTGACAGCTCA  
 ATGGGAGGCATGGAGGCTGTATCACGGCCTGGCAGATGACTTCCAGGTCTGAAGCGACACCGGAAAC  
 TCTTACATTTGGCGTCACCTTACGACTTTCTTCTCGCCCTGTCTGCATAACCAAGGTGGAATTTA  
 CGTCTTGACCCTCCTGGACACCTTTGCTGCGGGCACCTCCATCCTTTTTGCTGTCCTCATGGAAGCCATC  
 GGAGTTTCTGGTTTTATGGAGTGGACAGTTACGAACGACATCCAGCAGATGATGGGGTTCAGGCCGG  
 GTCTATACTGGAGACTGTGCTGGAAGTTCGTGAGTCTGCTCCTGCCTTCTCCTGTTCTGTTGGTGTG  
 CATCAACTTAAAGCCACTCACCTACGACGACTACATCTTCCCACCTGGGCCAACTGGGTGGGGTGGGGC  
 ATCGCCCTGTCTCCATGGTCTGGTGGCCATCTACGTATCTATAAGTTCCTCAGCACGCAGGGCTCTC  
 TTTGGGAGAGACTGGCCTATGGCATCACGCCAGAGAACGAGCACCACCTGGTGGCTCAGAGGGACATCAG  
 ACAGTTCAGATGAAAACGAGACAAGGGAGAAGGAGAGCTACCAACTCTTGCCAGATATCCTGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC230368 representing NM\_001172504  
Red=Cloning site Green=Tags(s)

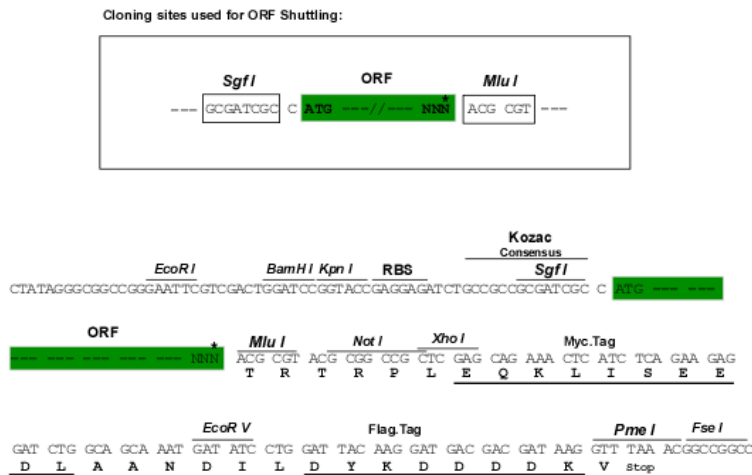
MLLARMNPQVQPENNGADTGPEQPLRARKTAELLVVKERNGVQCLLAPRDGDAQPRETWGKKIDFLLSVV  
 GFAVDLANVWRFPYLCYKNGGGAFLIPYTLFLIIAGMPLFYMELALGQYNREGAATVWKICPFKGVGYA  
 VILIALYVGFYYNVIIAWSLYLFSSTLNLPTDCGHTWNSPCTDPKLLNGSVLGNHTKYSKYKFTPA  
 AEFYERGVHLHHESSGIHDIQLPQWQLLCLMVVIVLYFSLWKGVKTSKGVVWITATLPYFVLFVLLVH  
 GVTLPGASNGINAYLHIDFYRLKEATVWIDAATQIFFSLGAGFVLIAFASYNKFDNNCYRDALLTSSIN  
 CITSFVSGFAIFSILGYMAHEHKVNIEDVATEGAGLVFLIYPEAISTLSGSTFWAVVFFVMLLALGLDSS  
 MGGMEAVITGLADDFQVLKRHRKLFVTFSTFLLALFCITKGGIYVLTLLDTFAAGTSILFAVMEAI  
 GVSWFYGVDRFSNDIQMMGFPRGLYWRLCWKFVSPAFLLVVVVSIINFKPLTYDDYIFPPWANWVGW  
 IALSSMVLVPIYVIYKFLSTQGSWERLAYGITPENEHHLVAQRDIRQFMKTRQGRRRATNSCQISC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001172504

**ORF Size:** 1884 bp

**OTI Disclaimer:** 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:**

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\\_001172504.1](#), [NP\\_001165975.1](#)

**RefSeq Size:** 2858 bp

**RefSeq ORF:** 1887 bp

**Locus ID:** 6530

**UniProt ID:** [P23975](#)

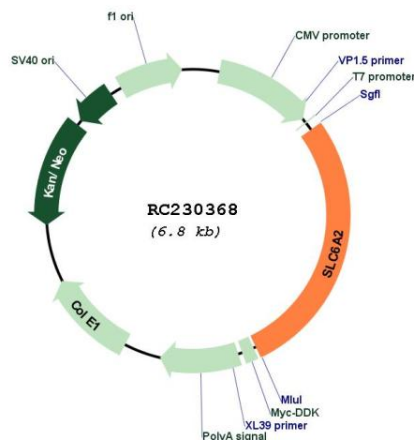
**Cytogenetics:** 16q12.2

**Protein Families:** Druggable Genome, Transmembrane

**MW:** 70.5 kDa

**Gene Summary:** This gene encodes a member of the sodium:neurotransmitter symporter family. This member is a multi-pass membrane protein, which is responsible for reuptake of norepinephrine into presynaptic nerve terminals and is a regulator of norepinephrine homeostasis. Mutations in this gene cause orthostatic intolerance, a syndrome characterized by lightheadedness, fatigue, altered mentation and syncope. Alternatively spliced transcript variants encoding different isoforms have been identified in this gene.[provided by RefSeq, Feb 2010]

### Product images:



Circular map for RC230368