

## Product datasheet for **RC219598**

### NUDT2 (NM\_147173) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NUDT2 (NM\_147173) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** NUDT2  
**Synonyms:** APAH1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC219598 representing NM\_147173  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTTGAGAGCATGTGGCTTGATCATCTCCGAAGATGCCTCATTCCCAAAGTGGACAACAATGCAA  
TTGAGTTTTACTGCTGCAGGCATCAGATGGCATTCACTGGACTCCTCCCAAAGGCCATGTGGAACC  
AGGAGAGGATGACTTGAAACAGCCCTGAGGGAGACCCAAGAGGAAGCAGGCATAGAAGCAGGCCAGCTG  
ACCATTATTGAGGGTTCAAAGGGAACCAATTATGTGGCCAGGAACAAGCCTAAAACAGTCATTTACT  
GGCTGGCGGAGGTGAAGGACTATGACGTGGAGATCCGCCTCTCCCATGAGCACAAGCCTACCGCTGGCT  
GGGCTGGAGGAGCCTGCCAGTTGGCTCAGTTCAAGGAGATGAAGGCAGCGCTCCAAGAAGGACACCAG  
TTCTTTGCTCCATAGAGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC219598 representing NM\_147173  
Red=Cloning site Green=Tags(s)  
  
MALRACGLIIFRRCLIPKVDNNAIEFLLLQASDGIHHWTPPKGHVEPEGDDLETALRETQEEAGIEAGQL  
TIEGFKRELNYVARNPKPTVIYWLAEVKDYDVEIRLSHEHQAYRWLGLEEACQLAQFKEMKAALQEGHQ  
FLCSIEA

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6048\\_g10.zip](https://cdn.origene.com/chromatograms/mk6048_g10.zip)



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_147173

ORF Size: 441 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\\_147173.3](#)

RefSeq Size: 978 bp

RefSeq ORF: 444 bp

Locus ID: 318

UniProt ID: [P50583](#)

Cytogenetics: 9p13.3

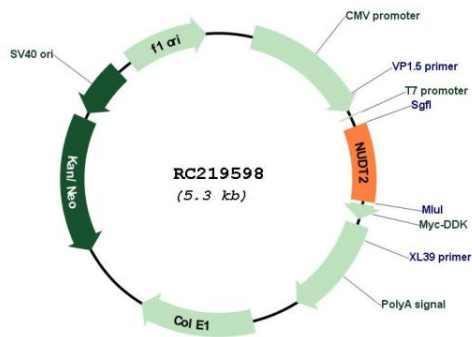
Domains: NUDIX

Protein Pathways: Purine metabolism, Pyrimidine metabolism

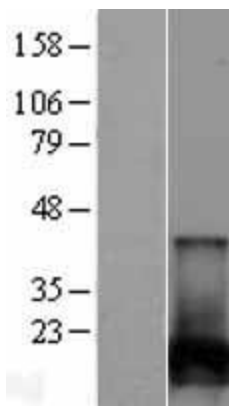
MW: 17.3 kDa

**Gene Summary:** This gene encodes a member of the MutT family of nucleotide pyrophosphatases, a subset of the larger NUDIX hydrolase family. The gene product possesses a modification of the MutT sequence motif found in certain nucleotide pyrophosphatases. The enzyme asymmetrically hydrolyzes Ap4A to yield AMP and ATP and is responsible for maintaining the intracellular level of the dinucleotide Ap4A, the function of which has yet to be established. This gene may be a candidate tumor suppressor gene. Alternative splicing has been observed at this locus and four transcript variants, all encoding the same protein, have been identified. [provided by RefSeq, Sep 2011]

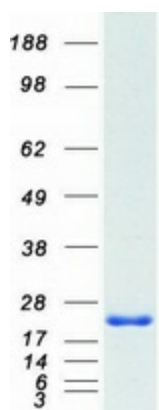
### Product images:



Circular map for RC219598



Western blot validation of overexpression lysate (Cat# [LY403446]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219598 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NUDT2 protein (Cat# [TP319598]). The protein was produced from HEK293T cells transfected with NUDT2 cDNA clone (Cat# RC219598) using MegaTran 2.0 (Cat# [TT210002]).