

## Product datasheet for **RC207724**

### **NUDT12 (NM\_031438) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NUDT12 (NM_031438) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NUDT12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC207724 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTCTTCTGTAAAAAGAAGCTGAAGCAAGAAATAGTTACTCAGTTTCACTGTTTCACTGCTGAAGGAG  
 ATATTGCCAAGTTAACAGGAATACTCAGTCATTCTCCATCTTCTCAATGAAACTTCTGAAATGGCTG  
 GACTGCTTTAATGTATGCGGCAAGGAATGGGCACCCAGAGATAGTCCAATTTCTGCTTGAGAAAGGGTGT  
 GACAGATCAATTGTCAATAAATCAAGGCAGACTGCACTGGATATTGCTGTATTTGGGGTTATAAGCATA  
 TAGCTAATTTACTAGCTACTGCTAAAGGTGGGAAGAAGCCTTGGTTCTAACGAATGAAGTGAAGAATG  
 TAAAAATTATTTAGCAAAACACTACTGGACCGGAAAAGTAAAAGAGGAATAATTCTGACTGGCTGCTA  
 GCTAAAGAAAGCCATCCAGCCACAGTTTTTATTCTTTTCTCAGATTTAAATCCCTGGTTACTCTAGGTG  
 GCAATAAAGAAAGTTTCCAACAGCCAGAAGTTAGGCTTTGTGAGTGAACACAGATATAAAGGATTA  
 TTTGGCCAGCCTGAGAAGATCACCTTGATTTTTCTTGGAGTAGAACTTGAATAAAAGACAAACTACTT  
 AATTATGCTGGTGAAGTCCCGAGAGAGGAGGAAGATGGATTGGTTGCCTGGTTTGTCTAGGTATAGATC  
 CTATTGCTGCTGAAGAATTCAAGCAAAGACATGAAAATTGTTACTTTCTCATCCTCTATGCCAGCCCT  
 TCTGCAATTGAAAGAAAAGAAGCTGGGGTTGTAGCTCAAGCAAGATCTGTTCTTGCCTGGCACAGTCGA  
 TACAAGTTTTGCCAACCTGTGGAATGCAACTAAAATTGAAGAAGTGGCTATAAGAGACTATGTTTAA  
 AAGAAGACTGTCTAGTCTCAATGGCGTCCATAATACCTCATACCCAAGAGTTGATCCAGTAGTAATCAT  
 GCAAGTTATTCATCCAGATGGGACCAATGCCTTTTAGGCAGGCAGAAAAGATTTCCCCAGGCATGTTT  
 ACTTGCCTTGTGGATTTATTGAGCCTGGAGAGACAATAGAAGATGCTGTTAGGAGAGAAGTAGAAGAGG  
 AAAGTGGAGTCAAAGTTGGCCATGTTCAAGTATGTTGCTTGTCAACCATGGCCAATGCCTTCTCTTAAT  
 GATTGGTTGCTTAGCTCTAGCAGTGTCTACAGAAATTAAGTTGACAAGAATGAAATAGAGGATGCCCGC  
 TGGTTCACTAGAGAACAGGTCCTGGATGTTCTGACCAAAGGGAAGCAGCAGGCATTCTTTGTGCCACCA  
 GCCGAGCTATTGCACATCAATTAATCAAACACTGGATTAGAATAAATCCTAATCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207724 protein sequence  
 Red=Cloning site Green=Tags(s)

MSSVKRSLKQEIVTQFHCSAAEGDIAKLTGILSHSPSLLNETSENGWTALMYAARNHPEIVQFLLEKGC  
 DRISIVNKSQRTALDIAVFWGYKHIANLLATAKGGKPPWFLTNEVEECENYFSKTLDRKSEKRNNSDWLL  
 AKESHPTVVFILFSDLNPLVTLGKNKESFQQPEVRLCQLNYTDIKDYLAQPEKITLIFLGVELEIKDKLL  
 NYAGEVPREEEDGLVAWFALGIDPIAAEEFKQRHENCYFLHPPMPALLQLKEKEAGVVAQARSVLAWHSR  
 YKFCPTCGNATKIEEGGYKRLCLKEDCPSLNGVHNTSYPRVDPVVIMQVIHPDGTCLLGRQKRFPPGMF  
 TCLAIFIEPGETIEDAVRREVEEESGVKVGHVQYVACQPWMPSSLMIGCLLALAVSTEIKVDKNEIEDAR  
 WFTREQLDVLTKGKQQAFFVPPSRAIAHQLIKHWIRINPNL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6236\\_b01.zip](https://cdn.origene.com/chromatograms/mk6236_b01.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_031438

**ORF Size:** 1386 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_031438.1](#)

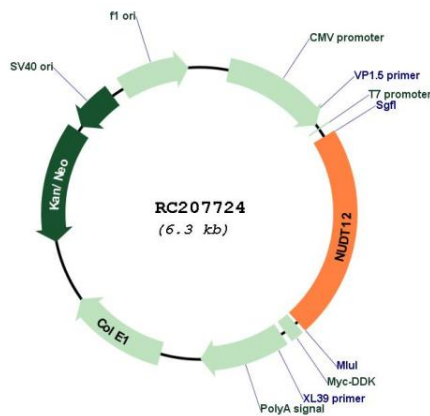
**RefSeq Size:** 3514 bp

**RefSeq ORF:** 1389 bp

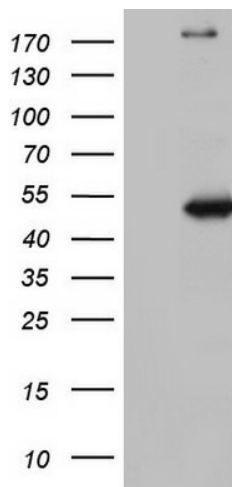
**Locus ID:** 83594

**UniProt ID:** [Q9BQG2](#)  
**Cytogenetics:** 5q21.2  
**Domains:** NUDIX, ANK  
**Protein Pathways:** Nicotinate and nicotinamide metabolism  
**MW:** 52.1 kDa  
**Gene Summary:** Nucleotides are involved in numerous biochemical reactions and pathways within the cell as substrates, cofactors, and effectors. Nudix hydrolases, such as NUDT12, regulate the concentrations of individual nucleotides and of nucleotide ratios in response to changing circumstances (Abdelraheim et al., 2003 [PubMed 12790796]).[supplied by OMIM, Mar 2008]

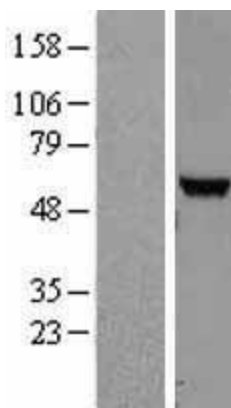
### Product images:



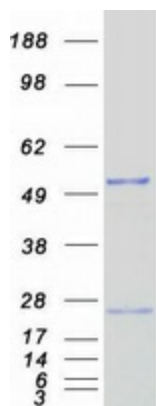
Circular map for RC207724



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NUDT12 (Cat# RC207724, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NUDT12(Cat# [TA805571]). Positive lysates [LY410513] (100ug) and [LC410513] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410513]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207724 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NUDT12 protein (Cat# [TP307724]). The protein was produced from HEK293T cells transfected with NUDT12 cDNA clone (Cat# RC207724) using MegaTran 2.0 (Cat# [TT210002]).