

Product datasheet for **SC328358**

NUDT16 (NM_001171906) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NUDT16 (NM_001171906) Human Untagged Clone
Tag:	Tag Free
Symbol:	NUDT16
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001171906, the custom clone sequence may differ by one or more nucleotides ATGGCCGAGCCCGCAGGCTGGAGCTAGGCGAGGCCCTGGCGTGGGGTCGGGCTGGCGTCATGCGTGC CAGCTCTCCTCTACGCGCCGGACCCTGGGATGCTCTTCGGCCGCATCCCGCTGCGCTACGCCATACTG ATGCAGATGCGCTTCGATGGACGCCTGGGCTTCCCCGGCGGATTTCGTGGACACGCAGGACAGAAGCCTA GAGGACGGGCTGAACCGCGAGCTGCGCGAGGAGCTGGGCGAAGCGGCTGCCGCTTCCGCGTGGAGCGC ACTGACTACCGCAGTCCCACGTCCGGTCCAGGGCCACGCGTTGTGGCCCACTTCTATGCCAAGCGTCTG ACGCTCGAGGAGCTGTTGGCTGTGGAGGCCGGCGCAACACGCGCCAAGGACCACGGGCTGGAGGTGGGA CCAGCCTGGGACTCTGTCCCTTTCCCAATTTCTCTTCTCCCAAAGCTTTCTCTCCCCAAGAAAGCAT CCCTGGAGAAAAGTCTTTGCCCTCTGACCTTGCCCTCTCCCCAGCTTTCTTGGTGGAGTTGGGATCGT GATCATCTATACTCTGAATTAGTACTGCCAACCTGGGCTTTCTGTAAGGTCTTTCCACCCCTTTACCA GGAGAGATCCTTTCTAGAACACACTCATCCATGCTCTCTGCTGTTCCCTATTGACAGTGTGA
Restriction Sites:	Sgfl-RsrII
ACCN:	NM_001171906
Insert Size:	684 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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).



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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_001171906.2](#)

RefSeq Size: 905 bp

RefSeq ORF: 684 bp

Locus ID: 131870

UniProt ID: [Q96DE0](#)

Cytogenetics: 3q22.1

MW: 25.3 kDa

Gene Summary: RNA-binding and decapping enzyme that catalyzes the cleavage of the cap structure of snoRNAs and mRNAs in a metal-dependent manner. Part of the U8 snoRNP complex that is required for the accumulation of mature 5.8S and 28S rRNA. Has diphosphatase activity and removes m7G and/or m227G caps from U8 snoRNA and leaves a 5' monophosphate on the RNA. Catalyzes also the cleavage of the cap structure on mRNAs. Does not hydrolyze cap analog structures like 7-methylguanosine nucleoside triphosphate (m7GpppG). Also hydrolysis m7G- and m227G U3-capped RNAs but with less efficiencies. Has broad substrate specificity with manganese or cobalt as cofactor and can act on various RNA species. Binds to the U8 snoRNA; metal is not required for RNA-binding. May play a role in the regulation of snoRNAs and mRNAs degradation. Acts also as a phosphatase; hydrolyzes the non-canonical purine nucleotides inosine diphosphate (IDP) and deoxyinosine diphosphate (dITP) as well as guanosine diphosphate (GDP), deoxyguanosine diphosphate (dGDP), xanthine diphosphate (XDP), inosine triphosphate (ITP) and deoxyinosine triphosphate (ITP) to their respective monophosphate derivatives and does not distinguish between the deoxy- and ribose forms (PubMed:20385596, PubMed:26121039). The order of activity with different substrates is IDP > dIDP >> GDP = dGDP > XDP = ITP = dITP (PubMed:20385596). Binds strongly to GTP, ITP and XTP. Participates in the hydrolysis of dIDP/IDP and probably excludes non-canonical purines from RNA and DNA precursor pools, thus preventing their incorporation into RNA and DNA and avoiding chromosomal lesions (PubMed:20385596).[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (1) encodes the longest isoform (1).