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Product datasheet for RR211670

Nudt5 (NM_001007733) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nudt5 (NM_001007733) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nudt5
Synonyms:	MGC94209
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR211670 representing NM_001007733 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGAGACCCAAGAACCAAAAGACTCTTCTCCCCCCACCGAGCAGCGCATTCTTTCAGAGGAGTTGATCT CAGAAGGAAAATGGGTCAAATTTGAAAAAACAACTTACATGGACCCCACCGGTAAAACTAGAACCTGGGA AACAGTGAAGCTTACGACCAGGAAGGGAAAATCTGCTGATGCCGTGTCAGTCATACCAGTCCTGCAAAGA ACGCTTCATCATGAGTGCATTGTCCTGGTGAAGCAGTTCCGGCCCCCGATGGGCGGCTACTGCCTGGAGT TCCCAGCAGGGCTCATCGAAGACGGGGAAAGCCCAGAAGCGGCTGCTCTGCGGGAGCTGGAGGAAGAGAC TGGCTACAAAGGTGACATTGCTGAATGCTCTCCAGCTGTGTGTATGGATCCAGGCTTGTCAAACTGCACC ACACACGTTGTGACAGTGACCATCAATGGAGATGACGCAGGAAATGTAAGGCCGAAACCCAAACCAGGGG ACGGAGAGTTTGTGGAAGTGATTTCTTTACCAAAGAATGATCTGCTGACGAGACTTGACGCTCTGGGTGC AGAAGACCGTCTTACAGTGGACGCCAGGGTCTACGCCTATGCTCTGGCGCTGAAACATGCCAACGCCAAG CCCTTCGAAGTGCCCTTCCTCAAATTT ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

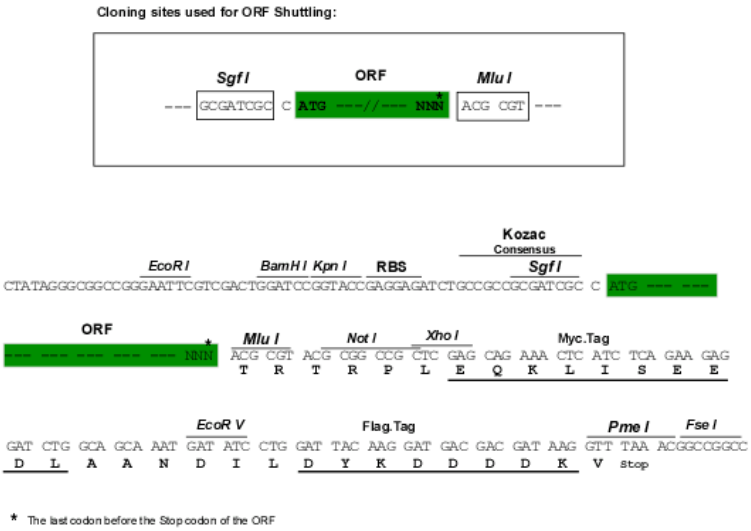
>RR211670 representing NM_001007733
Red=Cloning site Green=Tags(s)

METQEPKDSSPPTEQRILSEELISEGKWVKFEKTTYMDPTGKTRTWETVKLTTRKGKSADAVSVIPVLQR
TLHHECIVLVKQFRPPMGGYCLEFPAGLIEDGESPEAAALRELEEETGYKGDIAECSPAVCMDPGLSNCT
THVVTVTINGDDAGNVRPKPKPGDGEFVEVISLPKNDLLTRLDALGAEDRLTVDARVYAYALALKHANAK
PFEVPFLKF

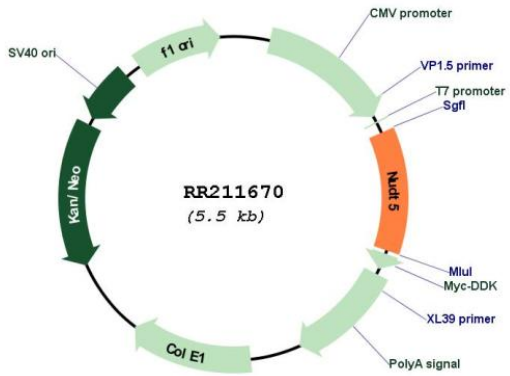
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001007733

ORF Size: 657 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_001007733.1, NP_001007734.1
RefSeq Size:	1366 bp
RefSeq ORF:	660 bp
Locus ID:	361274
UniProt ID:	Q6AY63
Cytogenetics:	17q12.3
MW:	24.1 kDa
Gene Summary:	Enzyme that can either act as an ADP-sugar pyrophosphatase in absence of diphosphate or catalyze the synthesis of ATP in presence of diphosphate. In absence of diphosphate, hydrolyzes with similar activities various modified nucleoside diphosphates such as ADP-ribose, ADP-mannose, ADP-glucose, 8-oxo-GDP and 8-oxo-dGDP. Can also hydrolyze other nucleotide sugars with low activity. In presence of diphosphate, mediates the synthesis of ATP in the nucleus by catalyzing the conversion of ADP-ribose to ATP and ribose 5-phosphate. Nuclear ATP synthesis takes place when dephosphorylated at Thr-45. Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming. Does not play a role in U8 snoRNA decapping activity. Binds U8 snoRNA.[UniProtKB/Swiss-Prot Function]