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Product datasheet for MR202441

Nudt5 (NM_016918) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nudt5 (NM_016918) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nudt5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR202441 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGACCCGAGAATCCACAGAGTCTTCTCCAGGCAAGCACCTTGTTACCTCAGAGGAGTTGATCTCAG
AAGGAAAATGGGTCAAATTTGAAAAAACAACTTATATGGATCCCACTGGTAAAACCAGAACTTGGGAAAC
AGTGAAACTTACAACCAGGAAGGGAAAATCTGCTGATGCCGTGTCGGTCATACCTGTGCTGCAAAGAACC
CTGCACCATGAGTGCGTCATCCTGGTGAAGCAGTTCCGGCCCCCGATGGGCAGCTACTGCCTGGAGTTTC
CAGCAGGGTTCATCGAAGACGGAGAAAACCCAGAGGCGGCTGCTCTTCGGGAGCTGGAGGAAGAAACTGG
CTACAAAGGTGAAGTTGCGGAATGCTCTCCAGCTGTGTGCATGGATCCAGGCTTGTCAAACTGCACCACA
CATGTTGTGACAGTGACCATCAATGGAGATGATGCAGGAAATGTAAGGCCAAAACCCAAACCAGGGGATG
GAGAATTTATGGAAGTGATTTCTTTACCAAAGAATGATCTGCTGACAAGACTTGACGCTTTGGGAGCAGA
ACAACACCTTACAGTGGATGCCAAGGTCTACGCCTACGGTCTGGCTCTGAAACACGCCAACTCGAAGCCA
TTCGAAGTGCCCTTCCTCAAATTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR202441 protein sequence
Red=Cloning site Green=Tags(s)

METRESTESSPGKHLVTSEELISEGKWVKFEKTTYMDPTGKTRTWETVKLTTRKGKSADAVSVIPVLQRT
LHHECVILVKQFRPPMGSYCLEFPAGFIEDGENPEAAALRELEEETGYKGEVAECSPAVCMDPGLSNCTT
HVVTVTINGDDAGNVRPKPKPGDGEFMEVISLPKNDLLTRLDALGAEQHLTVDAKVYAYGLALKHANSKP
FEVPFLKF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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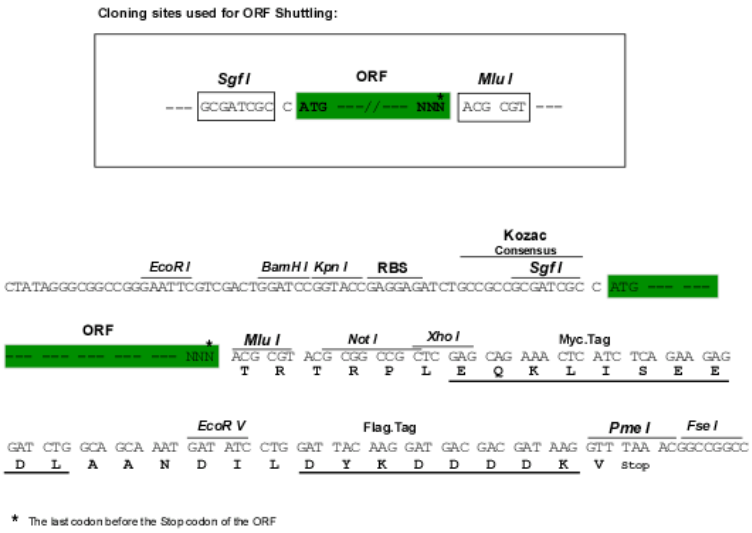
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016918

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_016918.1, NM_016918.2, NM_016918.3, NP_058614.1

RefSeq Size: 1590 bp

RefSeq ORF: 657 bp

Locus ID: 53893

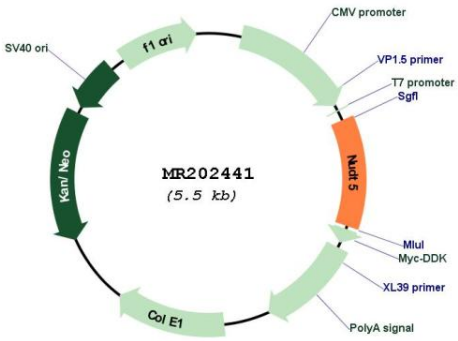
UniProt ID: Q9JKX6

Cytogenetics: 2 A1

MW: 24 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 (By similarity). 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 (PubMed:10722730). Can also hydrolyze other nucleotide sugars with low activity (PubMed:10722730). 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 (By similarity). Nuclear ATP synthesis takes place when dephosphorylated at Thr-44 (By similarity). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (By similarity). Does not play a role in U8 snoRNA decapping activity (PubMed:21070968). Binds U8 snoRNA (PubMed:21070968).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR202441