

Product datasheet for **RC202638**

SDOS (NUDT16L1) (NM_032349) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SDOS (NUDT16L1) (NM_032349) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SDOS
Synonyms:	SDOS; TIRR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202638 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGACGGCGGCTCCGGAGCTGAAGCAGATCAGCCGGTGGAGGCGATGCGCCTAGGGCCGGCT
GGAGCCACTCGTGCCACGCCATGCTGTACGCCGCAACCCTGGGAGCTCTTCGGCCGCATCCCCATGCG
CTTCTCGGTGCTGATGCAGATGCGTTTCGACGGGCTGCTGGGCTTCCCCGGGGCTTCGTGGACCGGCGC
TTCTGGTCGCTGGAGGACGGCTGAACCGGTGCTGGCCTGGGCTGGCTGCCTGCGCCTCACCAGG
CCGACTACCTGAGCTCGACCTGACCGAGGGCCACACCGCGTCGTGGCGCACCTGTACGCGCGGCAGCT
GACGCTGGAGCAGCTGCACGCCGTGGAGATCAGCGCGGTGCACTCGCGGACCACGGCCTGGAGGTGCTG
GGCCTCGTGCGGGTCCCCTGTACACCCAGAAGGACCGAGTCGGAGGCTTCCCCAACTTCTGAGCAACG
CCTTCGTGAGCACGGCTAAGTGCCAGCTCCTTTGCCCTCAAGGTGCTCAACATGATGCCCGAGGAGAA
GCTGGTTGAGGCCCTGGCTGCAGCCACCGAGAAGCAGAAGAAGGCCCTGGAGAAGTTGCTCCCGGCTCC
TCT

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202638 protein sequence
Red=Cloning site Green=Tags(s)

MSTAAVPELKQISRVEAMRLGPGWSHSCHAMLYAANPGQLFGRIPMRFVLMQMRFDGLLGFPGGFVDRR
 FWSLEDGLNRVLGLGLGCLRLTEADYLSHLTEGPHRVVAHL YARQLTLEQLHAVEISAVHSRDHGLEVL
 GLVRVPLYTQKDRVGGFPNFLSNAFVSTAKCQLLFALKVLNMMPEEKLVEALAAATEKQKKALEKLLPAS
 S

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6410_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032349

ORF Size: 633 bp

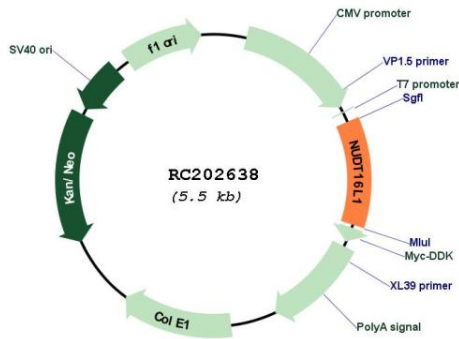
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

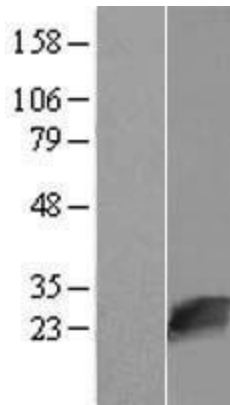
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_032349.3
RefSeq Size:	1367 bp
RefSeq ORF:	636 bp
Locus ID:	84309
UniProt ID:	Q9BRJ7
Cytogenetics:	16p13.3
MW:	23.3 kDa
Gene Summary:	Key regulator of TP53BP1 required to stabilize TP53BP1 and regulate its recruitment to chromatin (PubMed:28241136). In absence of DNA damage, interacts with the tandem Tudor-like domain of TP53BP1, masking the region that binds histone H4 dimethylated at 'Lys-20' (H4K20me2), thereby preventing TP53BP1 recruitment to chromatin and maintaining TP53BP1 localization to the nucleus (PubMed:28241136). Following DNA damage, ATM-induced phosphorylation of TP53BP1 and subsequent recruitment of RIF1 leads to dissociate NUDT16L1/TIRR from TP53BP1, unmasking the tandem Tudor-like domain and allowing recruitment of TP53BP1 to DNA double strand breaks (DSBs) (PubMed:28241136). Binds U8 snoRNA (PubMed:18820299).[UniProtKB/Swiss-Prot Function]

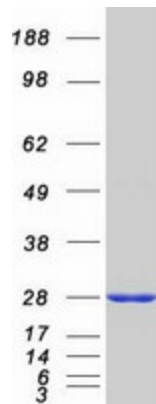
Product images:



Circular map for RC202638



Western blot validation of overexpression lysate (Cat# [LY410186]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202638 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NUDT16L1 protein (Cat# [TP302638]). The protein was produced from HEK293T cells transfected with NUDT16L1 cDNA clone (Cat# RC202638) using MegaTran 2.0 (Cat# [TT210002]).