

Product datasheet for RG202638

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: **TurboGFP**

Symbol: **SDOS**

Synonyms: SDOS; TIRR **Mammalian Cell**

Selection:

Neomycin

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG202638 representing NM_032349

Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTCGACGGCGGCTCCGGAGCTGAAGCAGATCAGCCGGGTGGAGGCGATGCGCCTAGGGCCGGGCT GGAGCCACTCGTGCCACGCCATGCTGTACGCCGCCAACCCTGGGCAGCTCTTCGGCCGCATCCCCATGCG CTTCTCGGTGCTGATGCAGATGCGTTTCGACGGGCTGCTGGGCTTCCCCGGGGGGCTTCGTGGACCGGCGC TTCTGGTCGCTGGACGGCCTGAACCGGGTGCTGGGCCTGGGCCTGGGCTGCCCTCACCGAGG CCGACTACCTGAGCTCGCACCTGACCGAGGGCCCACACCGCGTCGTGGCGCACCTGTACGCGCGCAGCT GACGCTGGAGCAGCTGCACGCCGTGGAGATCAGCGCGGTGCACTCGCGCGACCACGGCCTGGAGGTGCTG GGCCTCGTGCGGGTCCCGCTGTACACCCAGAAGGACCGAGTCGGAGGCTTCCCCAACTTCCTGAGCAACG CCTTCGTGAGCACGGCTAAGTGCCAGCTCCTCTTTGCCCTCAAGGTGCTCAACATGATGCCCGAGGAGAA GCTGGTTGAGGCCCTGGCTGCAGCCACCGAGAAGCAGAAGAAGGCCCTGGAGAAGTTGCTCCCGGCCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202638 representing NM_032349

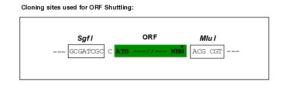
Red=Cloning site Green=Tags(s)

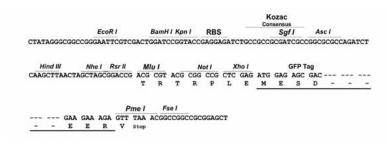
MSTAAVPELKQISRVEAMRLGPGWSHSCHAMLYAANPGQLFGRIPMRFSVLMQMRFDGLLGFPGGFVDRR FWSLEDGLNRVLGLGLGCLRLTEADYLSSHLTEGPHRVVAHLYARQLTLEQLHAVEISAVHSRDHGLEVL GLVRVPLYTQKDRVGGFPNFLSNAFVSTAKCQLLFALKVLNMMPEEKLVEALAAATEKQKKALEKLLPAS S

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

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:

- 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: <u>NM 032349.3</u>

 RefSeq Size:
 1341 bp

 RefSeq ORF:
 636 bp

 Locus ID:
 84309

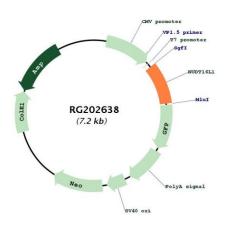
 UniProt ID:
 Q9BRJ7

 Cytogenetics:
 16p13.3

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 RG202638