

## Product datasheet for **MR231261**

### **Sidt2 (NM\_001289668) Mouse Tagged ORF Clone**

#### **Product data:**

|                    |   |
|--------------------|---|
| Product Type:      | Expression Plasmids                         |
| Product Name:      | Sidt2 (NM_001289668) Mouse Tagged ORF Clone |
| Tag:               | Myc-DDK                                     |
| Symbol:            | Sidt2                                       |
| Synonyms:          | B930096O19; BC023957; CGI-40                |
| Vector:            | pCMV6-Entry (PS100001)                      |
| E. coli Selection: | Kanamycin (25 ug/mL)                        |
| Cell Selection:    | Neomycin                                    |



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**ORF Nucleotide Sequence:**

>MR231261 representing NM\_001289668  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATCGCCTGGCGTCTGCCCTTGTCGTGCTCTTGGTGGCCTCCGTCGAGAGCCACCTGGGGCCCTGG  
 GGCCCAAGAACGTCTCGCAGAAAGACGCGGAGTTTGGAGCCACCTACGCGGACGACGTCAACAGCGAGCT  
 GGTCAACATCTACACCTTCAACACACCCGTGACCCGCAACCGGACCGAGGGTGTGCGAGTGTCTGTGAAT  
 GTCCTGAACAAGCAGAAAGGGGCGCCTTTGCTGTTTGGTCCGCCAGAAGGAGGCTGTTGTGCTCTTCC  
 AGGTGCCCTAATCCTTCGAGGACTATATCAGCGGAAGTACCTCTACAAAAAGTGAACGAACTCTGTG  
 TCAGCCCCCACCAGAATGAGTCTGAGATCCAGTTTTTCTATGTGGACGTGTCTACCCTGTACCCGTC  
 AATACCACTTACCAGCTCCGAGTCAACCGTGTGGACAATTTGTGCTCAGGACTGGAGAGCTGTTACTT  
 TTAATACCACTGCAGCCAGCCAGTACTTCAAATACGAGTTTCTGATGGTGTGGACTCGGTAATTGT  
 CAAGGTGACCTCCAAGAAGGCCCTCCCCTGCTCAGTCATCTCCATCCAAGATGTCTGTGCCCTGTCTAT  
 GATCTGGACAACAATGTAGCCTTATTGGCATGTACCAGACGATGACTAAGAAGGAGCCATCACTGTGC  
 AGCGGAAAGACTTCCCCAGCAACAGCTTCTATGTGGTGGTGGTAGTGAAGACTGAGGACCAGGCCTGCGG  
 AGGGTCTTTGCCCTTCTACCCCTTTGTGGAAGATGAGCCAGTGGATCAAGGGCACCGTCAGAAAACACTG  
 TCAGTGTGGTCTCTCAGGCTGTACATCTGAGGCCTATGTTGGTGGGATGCTCTTTGCCCTGGGCATAT  
 TCTTGTCTTCTACCTGTGACTGTGCTGCTGGCCTGTTGGGAGAACTGGAGGCAAGGAAGAAGACCTT  
 GCTGTTGGCCATAGACCGAGCCTGCCAGAAAGTGGTACGCCCCGGTCTGGCTGATTCATTTCTGGC  
 AGTGCCCTTACGAGGGTTACAACATGGCTCCTTTGAAAATGGTCCGGATCCACTGACGGGTTGGTTG  
 AAAGCGCAGGTTACGGGACCTCTCCTACAGTACCAGGGGACGACCACTTCAAGCGGCCCTCCCTC  
 TGGCCAGATGCGGCAGCTGTGCATTGCCATGGACCGCTCCTTTGACGCAGTGGGTCTCGGCCTCGACTG  
 GACTCCATGAGCTCCGTGGAAGAGGATGACTACGACACACTGACTGACATCGACTCAGACAAAAAGTCA  
 TTCGAACCAAGCAATACCTCTGTGTGGCTGATCTGGCACGAAAGGACAAACGTGTTTTGCGGAAAAAGTA  
 CCAGATTTACTTCTGGAACATAGCCACCATTGCGGTCTTCTACGCACTTCTGTGGTGCAGCTGGTATC  
 ACCTACCAGACGGTGGTGAATGTCACAGGGAACAGGACATCTGCTACTACAACCTCCTCTGTGCCACC  
 CGCTGGCAACCTCAGCGCCTTCAACAACATCCTCAGCAACTGGGGTACATCCTGCTGGGGCTGCTCTT  
 CCTGCTCATCATCTGCAGCGAGAGATCAATCATAACCGGGCCCTGCTGCGGAATGACCTCTATGCTCTG  
 GAGTGTGGGATCCCCAACACTTTGGTCTGTTTTACGCCATGGGCACAGCACTGATGATGGAGGGGCTAC  
 TTAGTGCCTGTTACCACGTCTGCCCAACTACACCAACTTCCAGTTTGATACCTCCTTATGTACATGAT  
 TGCTGGCCTCTGCATGCTGAAGCTTACCAGAAGCGGCACCCAGATATCAACGCCAGTGCCTACAGTGCA  
 TATGCCTGCTTGGCCATCGTCATCTTCTTCTCCGTTCTGGGCGTGGTGTGGCAAGGGGAACACGGCCT  
 TCTGGATTGTCTTCTCCGTCACTTACATCATCTCCACCCTGCTCCTCAGCACTCAGCTCTATTACATGGG  
 CCGCTGGAAGCTGGACTCCGGGATCTCCGCGCATCCTCCATGTGCTCTACACAGACTGCATCCGGCAG  
 TGCAGCGGGCCCTTTACACGGACCGCATGGTGTCTTGGTATGGGCAACATTCAACTGGTCTGCTGG  
 CTGCATACGCACTCATCATGCGCCCAATGACTTTGCTTCTACTTGTGGCAATTGGCATCTGCAACCT  
 GCTGCTTTATTTGCGCTTCTACATCATCATGAAGCTCCGGAGCGGCGAGAGGATCAAGCTCATCCCTCTG  
 CTCTGCATCGTCTGCACCTCCGTGGTCTGGGGCTTCGCGCTCTTCTTCTTCTTCCAGGGACTGAGCACGT  
 GGCAGAAAACCCCGCAGAGTCCAGGGAGCACAACCGGACTGCATCCTCCTCGACTTCTTTGATGACCA  
 CGATATCTGGCACTTCTGTCTCCATTGCCATGTTGGGTCTTCTGTTTGGTGTGACGTTGGATGAC  
 GACTTGGACACAGTACAGCGGGACAAGATCTATGTCTTC

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR231261 representing NM\_001289668  
Red=Cloning site Green=Tags(s)

MIAWRLPLCVLLVASVESHGALGPKNVSQKDAEFERTYADDVNSELVNIYTFNHTVTRNRTEGVRVSVN  
VLNKQKGAPLLFVVRQKEAVVSFQVPLILRGLYQRKYLQKVERTLCQPPTKNESEIQFFYVDVSTLSPV  
NTTYQLRVNRVDNFVLRGTGELFTFNTTAAQPQYFKYEPDGVDSVIVKVTSKKAFPCSVISIQDVLCPVY  
DLDNVAFIGMYQTMTKAAITVQRKDFPSNSFYVVVVVKTEDQACGGSLPFYYPFVEDEPVDQGHRQKTL  
SVLVSQAVTSEAYVGGMLFCLGIFLSFYLLTVLLACWENWRQRKKTLLLAIDRACPESGHARVLADSFPG  
SAPYEGYNYGSFENGSGSTDGLVESAGSGDLSYSYQGHQDFKRRLPSGQMRQLCIAMDRSFDVAVGPRPRL  
DSMSSVEEDDYDTLTDIDSDKNVIRTKQYLCVADLARKDKRVLKRYQIYFVNIATIAVFYALPVVQLVI  
TYQTVVNTGNQDICYNFLCAHPLGNLSAFNNILSNLGYILLGLLFLLIILQREINHRALLRNDLYAL  
ECGIPKHFGLFYAMGTALMMEGLLSACYHVCPNYTNFQFDTSMFYMIAGLCMLKLYQKRHPDINASAYSA  
YACLAIVIFFSVLGVVFGKGNTAFWIVFSVIHIIISTLLLSTQLYYMGRWKLDGIFRRILHVLTYDCIRQ  
CSGPLYTDRMVLLVMGNIINWSLAAYGLIMRPNDFASYLLAIGICNLLL YFAFYIIMKLRSGERIKLIPL  
LCIVCTSVVWGFALFFFQGLSTWQKTPAESREHNRDCILLDFDDHDIWHFLSSIAMFGSFLVLLTLDD  
DLDTVQRDKIYVF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

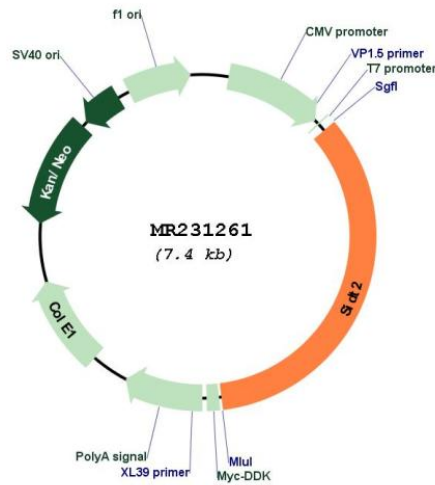
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



|                               |   |
|-------------------------------|---|
| <b>ACCN:</b>                  | NM_001289668  |
| <b>ORF Size:</b>              | 2559 bp   |
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | 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).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_001289668.1</a> , <a href="#">NP_001276597.1</a>   |
| <b>RefSeq Size:</b>           | 4302 bp   |
| <b>RefSeq ORF:</b>            | 2562 bp   |
| <b>Locus ID:</b>              | 214597  |
| <b>UniProt ID:</b>            | <a href="#">Q8CIF6</a>  |
| <b>Cytogenetics:</b>          | 9 A5.2  |
| <b>MW:</b>                    | 97.4 kDa  |
| <b>Gene Summary:</b>          | Mediates the translocation of RNA and DNA across the lysosomal membrane during RNA and DNA autophagy (RDA), a process in which RNA and DNA is directly imported into lysosomes in an ATP-dependent manner, and degraded (PubMed:27046251, PubMed:27846365, PubMed:28724756). Involved in the uptake of single-stranded oligonucleotides by living cells, a process called gymnosis (PubMed:28277980). In vitro, mediates the uptake of linear DNA more efficiently than that of circular DNA, but exhibits similar uptake efficacy toward RNA and DNA (PubMed:27846365). Binds long double-stranded RNA (dsRNA) (500 - 700 base pairs), but not dsRNA shorter than 100 bp (PubMed:26067272).[UniProtKB/Swiss-Prot Function] |