

## Product datasheet for **SC312525**

### DSU (MREG) (NM\_018000) Human Untagged Clone

#### Product data:

|                           |                                             |
|---------------------------|---------------------------------------------|
| Product Type:             | Expression Plasmids                         |
| Product Name:             | DSU (MREG) (NM_018000) Human Untagged Clone |
| Tag:                      | Tag Free                                    |
| Symbol:                   | DSU                                         |
| Synonyms:                 | DSU; WDT2                                   |
| Mammalian Cell Selection: | None                                        |
| Vector:                   | <u>pCMV6-XL5</u>                            |
| E. coli Selection:        | Ampicillin (100 ug/mL)                      |



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| <b>Fully Sequenced ORF:</b> | <p>&gt;OriGene sequence for NM_018000 edited</p> <pre> GCCCTCGCCCGCGTCCCCGGCCGCGCGTGTATGCGCGCGGACCGCCGCGACGCCCCGGG CTGCCGCTGTCCCGCACCTGGACGCTGGCGCGGTGGCCGCGCCCGAGCCTCGATCGCTC GCCGCGGCGACTCGGCCCCAGGCTTCCGGCGCCGGTGGGGGCCCTCGCTCTCCATGGGGC TGAGGGAGCTGGCTGAGAACCGTGTGCTGCTGCTGCGGGTGCGAGTGCTTGGAGGAGCGCG CCCTGCCTGAGAAGGAGCCCTCGTCAGTGATAACAATCCATATTCCTCATTTGGAGCAA CTCTGGTGAGGGATGATGAGAAGAATTTATGGAGTATGCCCATGATGTGTCCACACAG AGGCAGACGACGACAGAACCCGTACAATTTGATAGTCATTCTAATCAGCAGGCCAAAG ACTCAGAGGAGTGGCAGAAGCTCAACTATGATATCCATACCCTGCGGCAGGTTTCAAGGG AAGTAAGAAACAGATGGAAGTGCATCTTAGAAGATTTAGGTTTTCAAAGGAAGTGACT CTTTGTTGTGCTGACTAACTCAGCACCATCAGTGATTCTAAAAACACAAGGAAAGCTC GAGAGATGTTGTTAAACTGGCTGAAGAAACCAATATTTTCCCAACAAGTTGGGAGCTCT CAGAGAGATATCTTTTGTGTGGACCGTCTCATTGCACTTGATGCTGCAGAAGAGTTCT TTAAGCTTGCTCGTGAACCTACCCCAAGAAGCCTGGGGTTCCATGCCTGGCAGATGGCC AGAAAGAACTGCACTACCTTCCGTTTCCAAGTCCCTAAAGGAGAGGCTCAGGGGCAGAAT GGGAATCTTCCATGAGGACTCAGCAGTCAACCAAAGTTGGACAATTACATGTAGAAGAG ACTGCACCTGTGGGGGACCTCTCATGCAGACTTGACATATGCAGGGAGATTGCACTG AAGATCTTTGCTGGACCTTCTTCTCTTCAAGATAATTTTCAAAGGGAGCAATGCTGT GAATGCAGCTTGCTTCTCTACAGATTGAGAAGTCCAGCTTCAAAGTTACTTGCCACT TAAGCAAGGAACCTGTCAAGAGATCATGGTTCATGTTACTGAAAAGACTTTAAGGATTTG TAAGGTTAATCCATAGATTGCTGAGAAAAATGGAATATTTTTATTTTACAGATTTTGC ACTTCTGAATTCAGGTTAAAACTAACTTGTATTTAGTCTGCTTAGAGGACTGTGACTTG AAAATTTTATATACCAATGAGCTTTTTTGGTAGCGTCCACAATGTTTAAATATTTTATA GGCGAGATCCGTGTTCTCCATTTATTAATGCATTGTAGACCAATTTAACTGCTGTGTTT AGGAAAATTTCTTCTAGTTTAATAAGCAAGCTAAAAGTTTATTTTTATATTTAGTGCT TAATCTTTGCCTCATGTTATGTAATAAGCCTGCAGATATTTTCTCAATTCTGTAGA CTCTCGCAAGATAAACATTCAAACAGTGAACAAACAATAAAATAAATAAACCTAAGGAT GTCGTATTGTTTTACTCTCGGTCTCAGAATTTGTATTTTGCCTTTCTGCCTTTTTATGT CAA </pre> |
| <b>Restriction Sites:</b>   | Please inquire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ACCN:</b>                | NM_018000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Insert Size:</b>         | 1700 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>OTI Disclaimer:</b>      | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>OTI Annotation:</b>      | The ORF of this clone has been fully sequenced and found to be a perfect match to NM_018000.1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| <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>                | <u>NM_018000.1, NP_060470.1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>RefSeq Size:</b>           | 1534 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>RefSeq ORF:</b>            | 675 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Locus ID:</b>              | 55686                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>UniProt ID:</b>            | <u>Q8N565</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Cytogenetics:</b>          | 2q35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Gene Summary:</b>          | <p>Probably functions as cargo-recognition protein that couples cytoplasmic vesicles to the transport machinery. Plays a role in hair pigmentation, a process that involves shedding of melanosome-containing vesicles from melanocytes, followed by phagocytosis of the melanosome-containing vesicles by keratinocytes. Functions on melanosomes as receptor for RILP and the complex formed by RILP and DCTN1, and thereby contributes to retrograde melanosome transport from the cell periphery to the center. Overexpression causes accumulation of late endosomes and/or lysosomes at the microtubule organising center (MTOC) at the center of the cell. Probably binds cholesterol and requires the presence of cholesterol in membranes to function in microtubule-mediated retrograde organelle transport. Binds phosphatidylinositol 3-phosphate, phosphatidylinositol 4-phosphate, phosphatidylinositol 5-phosphate and phosphatidylinositol 3,5-bisphosphate, but not phosphatidylinositol 3,4-bisphosphate or phosphatidylinositol 4,5-bisphosphate (By similarity). Required for normal phagosome clearing and normal activation of lysosomal enzymes in lysosomes from retinal pigment epithelium cells (PubMed:19240024). Required for normal degradation of the lipofuscin component N-retinylidene-N-retinylethanolamine (A2E) in the eye. May function in membrane fusion and regulate the biogenesis of disk membranes of photoreceptor rod cells (By similarity).[UniProtKB/Swiss-Prot Function]</p> |