

## Product datasheet for **SC303739**

### Septin 2 (SEPT2) (NM\_006155) Human Untagged Clone

#### Product data:

|                      |   |
|----------------------|---|
| Product Type:        | Expression Plasmids   |
| Product Name:        | Septin 2 (SEPT2) (NM_006155) Human Untagged Clone   |
| Tag:                 | Tag Free  |
| Symbol:              | Septin 2  |
| Synonyms:            | DIFF6; hNedd5; NEDD-5; NEDD5; Pnutl3; SEPT2   |
| Vector:              | <u>pCMV6 series</u>   |
| Fully Sequenced ORF: | <p>&gt;NCBI ORF sequence for NM_006155, the custom clone sequence may differ by one or more nucleotides</p> <pre> ATGTCTAAGCAACAGCCAACTCAGTTTATAAATCCAGAAACACCTGGCTATGTTGGATT GCAAACCTCCCCAATCAAGTTCACCGAAAATCAGTGAAAAAAGGTTTGGAGTTCACACTG ATGGTGGTCGGTGAATCAGGTCTAGGAAAATCGACTCTCATAAACAGCCTATTCTAACT GATCTGTACCCAGAAAGAGTCATACCTGGAGCAGCAGAAAAAATTGAAAGAACTGTCCAG ATTGAGGCTTCAACTGTTGAAATTGAAGAGCGAGGGGTCAAGCTACGCCTGACAGTGGTA GATACCCCTGGCTATGGTGACGCTATCAACTGCAGAGATTGTTTTAAGACAATTATCTCC TATATTGATGAGCAATTTGAGAGGTACCTGCATGACGAGAGCGGCTTGAACAGGCGGCAC ATCATTGATAATAGGGTGCATTGTTGCTTTACTTTATTTACCTTTTGGACATGGACTT AAGCCCTTAGATGTGGCGTTTATGAAGGCAATACACAACAAGGTGAATATTGTGCCTGTC ATTGCAAAAGCTGACACTCTCACCCTGAAGGAACGGGAGCGGCTGAAGAAAAGGATTCTG GATGAAATTGAAGAACATAACATCAAAATCTATCACTTACCTGATGCAGAAATCAGATGAA GATGAAGATTTTAAAGAGCAGACTAGACTTCTCAAGGCTAGCATCCCATTCTCTGTGGTT GGATCCAATCAGTTGATTGAAGCCAAAGGAAAGAAGGTCAGAGGCCGCCTCTACCCCTGG GGTGTGTGGAAGTGGAGAACCAGAGCACAATGACTTTCTGAAGCTGAGAACCATGCTC ATCACCCACATGCAGATCTCCAGGAGGTGACCCAGGACCTTCATTATGAAAACCTCCGT TCTGAGAGACTCAAGAGAGGCGGCAGGAAAGTGGAGAATGAGGACATGAATAAAGACCAG ATCTTGCTGGAAGAAAGAGCTGAGCTCCGCCGATGCAAGAGATGATTGCAAGGATGCAG GCGCAGATGCAGATGCAGATGCAGGCGGGGATGGCGATGGCGGGGCTCTCGGGCACCAC GTGTAA </pre> |
| Restriction Sites:   | Please inquire  |
| ACCN:                | NM_006155   |
| OTI Disclaimer:      | 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).  |



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|-------------------------------|--|
| <b>OTI Annotation:</b>        | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.   |
| <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>                | <u>NM_006155.1, NP_006146.1</u>  |
| <b>RefSeq Size:</b>           | 3497 bp  |
| <b>RefSeq ORF:</b>            | 1086 bp  |
| <b>Locus ID:</b>              | 4735   |
| <b>UniProt ID:</b>            | <u>Q15019</u>  |
| <b>Cytogenetics:</b>          | 2q37.3   |
| <b>Gene Summary:</b>          | <p>Filament-forming cytoskeletal GTPase. Forms a filamentous structure with SEPTIN12, SEPTIN6, SEPTIN2 and probably SEPTIN4 at the sperm annulus which is required for the structural integrity and motility of the sperm tail during postmeiotic differentiation (PubMed:25588830). Required for normal organization of the actin cytoskeleton. Plays a role in the biogenesis of polarized columnar-shaped epithelium by maintaining polyglutamylated microtubules, thus facilitating efficient vesicle transport, and by impeding MAP4 binding to tubulin. Required for the progression through mitosis. Forms a scaffold at the midplane of the mitotic spindle required to maintain CENPE localization at kinetochores and consequently chromosome congression. During anaphase, may be required for chromosome segregation and spindle elongation. Plays a role in ciliogenesis and collective cell movements. In cilia, required for the integrity of the diffusion barrier at the base of the primary cilium that prevents diffusion of transmembrane proteins between the cilia and plasma membranes: probably acts by regulating the assembly of the tectonic-like complex (also named B9 complex) by localizing TMEM231 protein. May play a role in the internalization of 2 intracellular microbial pathogens, <i>Listeria monocytogenes</i> and <i>Shigella flexneri</i>. [UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1-4, 8-13, and 16-18 encode the same isoform (a).</p> |