

# Recombinant Human SEPTIN2 Protein, Myc/DDK-tagged, C13 and N15-labeled

**Cat. No.** SEPTIN2-3428H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Product Overview</b> | SEPT2 MS Standard C13 and N15-labeled recombinant protein (NP_006146) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</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. 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>.</p> |

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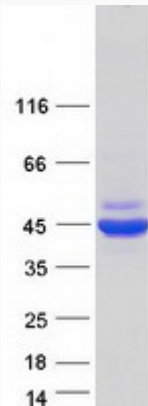
 45-1 Ramsey Road, Shirley, NY 11967, USA

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|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b>   | 41.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>AA Sequence</b>      | MSKQQPTQFINPETPGYVGFANLPNQVHRKSVKKGFEFTLMVVGESGLGKSTLINSL<br>FLTDLYPERVISGAAEKIERTVQIEASTVEIEERGVLRLTVVDTPGYGDAINCRDCFK<br>TIISYIDEQFERYLHDESGLNRRHIIDNRVHCCFYFISPFHGLKPLDVAFMKAIHNKV<br>NIVPVIKADTLTLKERERLKKRILDEIEEHNIKIYHLPDAESDEDEDFKEQTRLLKASIP<br>FSVVGSNQLIEAKGKKVRGRLYPWGVVEVENPEHNDFLKLRTMLITHMQDLQEVTTQ<br>DLHYENFRSERLKRGGGRKVENEDMNKDQILLEKEAELRRMQEMIARMQAQMOMQ<br>MQGGDGDGGALGHHVTRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Stability</b>        | Stable for 3 months from receipt of products under proper storage and handling conditions.                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>          | Store at -80 centigrade. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Concentration</b>    | 50 µg/mL as determined by BCA                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Storage Buffer</b>   | 100 mM glycine, 25 mM Tris-HCl, pH 7.3.                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene Name</b>        | SEPTIN2 septin 2 [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Official Symbol</b>  | SEPTIN2                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>         | SEPTIN2; septin 2; DIFF6; NEDD5; SEPT2; NEDD-5; Pnutl3; hNedd5; septin-2; epididymis secretory sperm binding protein; neural precursor cell expressed, developmentally down-regulated 5                                                                                                                                                                                                                                         |

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|----------------|-------------------------------------------------------------------------------------|
| Gene ID        | 4735                                                                                |
| mRNA Refseq    | NM_006155                                                                           |
| Protein Refseq | NP_006146                                                                           |
| MIM            | 601506                                                                              |
| UniProt ID     | Q15019                                                                              |
| SDS-PAGE       |  |