

Product datasheet for RC211650

Septin 2 (SEPT2) (NM_001008492) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Septin 2 (SEPT2) (NM_001008492) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Septin 2
Synonyms:	DIFF6; hNedd5; NEDD-5; NEDD5; Pnutl3; SEPT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211650 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGTCTAAGCAACAGCCAACCTCAGTTTATAAATCCAGAAACACCTGGCTATGTTGGATTTGCAAACCTCC
CCAATCAAGTTCACCGAAAATCAGTGAAAAAGGTTTTGAGTTCACACTGATGGTGGTCCGGTGAATCAGG
TCTAGGAAAATCGACTCTATAACAGCCTATTCCTAACTGATCTGTACCCAGAAAGAGTCATATCTGGA
GCAGCAGAAAAAATTGAAAGAACTGTCCAGATTGAGGCTTCAACTGTTGAAATTGAAGAGCGAGGGGTCA
AGCTACGCCTGACAGTGGTAGATACCCCTGGCTATGGTGACGCTATCAACTGCAGAGATTGTTTTAAGAC
AATTATCTCTATATTGATGAGCAATTTGAGAGGTACCTGCATGACGAGAGCGGCTTGAACAGGCGGCAC
ATCATTGATAATAGGGTGCAATTGTTGCTTTACTTTATTTACCTTTTGGACATGGACTTAAGCCCTTAG
ATGTGGCGTTTATGAAGGCAATACACAACAAGGTGAATATTGTGCCTGTCATTGCAAAAGCTGACTCT
CACCTGAAGGAACGGGAGCGGCTGAAGAAAAGGATTCTGGATGAAATTGAAGAACATAACATCAAAATC
TATCACTTACCTGATGCAGAATCAGATGAAGATGAAGATTTTAAAGAGCAGACTAGACTTCTCAAGGCTA
GCATCCCATTCTCTGTGGTTGGATCCAATCAGTTGATTGAAGCCAAGGAAAGAAAGGTGAGAGCCGCT
CTACCCCTGGGGTGTGTGGAAGTGGAGAACCAGAGCACAATGACTTTCTGAAGCTGAGAACCATGCTC
ATCACCCACATGCAGGATCTCCAGGAGGTGACCCAGGACCTTATTATGAAAACCTCCGTTCTGAGAGAC
TCAAGAGAGGCGCAGGAAAGTGGAGAATGAGGACATGAATAAAGACCAGATCTTGCTGGAAAAAGAAC
TGAGCTCCGCGCATGCAAGAGATGATTGCAAGGATGCAGGCGCAGATGCAGATGCAGATGCAGGCGGG
GATGGCGATGGCGGGCTCTCGGCACACGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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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: [NM_001008492.2](#)

RefSeq Size: 3408 bp

RefSeq ORF: 1086 bp

Locus ID: 4735

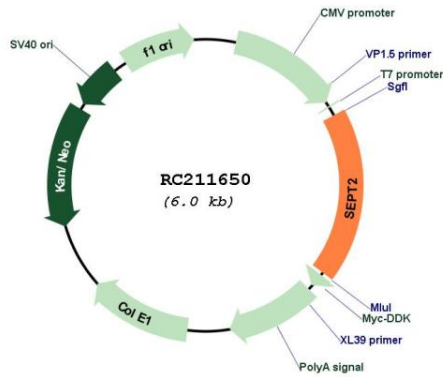
UniProt ID: [Q15019](#)

Cytogenetics: 2q37.3

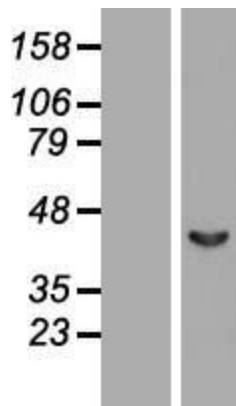
MW: 41.5 kDa

Gene Summary: 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, *Listeria monocytogenes* and *Shigella flexneri*. [UniProtKB/Swiss-Prot Function]

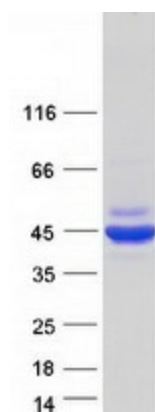
Product images:



Circular map for RC211650



Western blot validation of overexpression lysate (Cat# [LY423438]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211650 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SEPTIN2 protein (Cat# [TP311650]). The protein was produced from HEK293T cells transfected with SEPTIN2 cDNA clone (Cat# RC211650) using MegaTran 2.0 (Cat# [TT210002]).