

Recombinant Human SEPTIN2 protein, His-tagged

Cat. No. SEPTIN2-33H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Septin2 protein (1-361 aa), fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	381
Description	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

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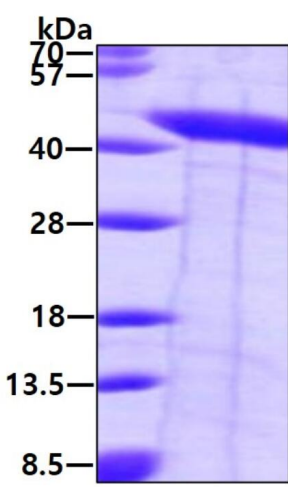
 45-1 Ramsey Road, Shirley, NY 11967, USA

	microbial pathogens, <i>Listeria monocytogenes</i> and <i>Shigella flexneri</i> .
Form	Liquid
Molecular Mass	43.6 kDa
AA Sequence	MSKQQPTQFINPETPGYVGFANLPNQVHRKSVKKGFEFTLMVVGESGLGKSTLINSL FLTDLYPERVISGAAEKIERTVQIEASTVEIEERGVLRLTVVDTPGYGDAINCRDCFK TIISYIDEQFERYLHDESGLNRRHIIDNRVHCCFYFISPFHGLKPLDVAFMKAIHNKV NIVPVIKADTLTLKERERLKKRILDEIEEHNIKIYHLPDAESDEDEDFKEQTRLLKASIP FSVVGSNQLIEAKGKKVRGRLYPWGVVEVENPEHNDFLKLRTMLITHMQDLQEVTQ DLHYENFRSERLKRGGGRKVENEDMNKDQILLEKEAELRRMQEMIARMQAQMQMQ MQGGDGDGGALGHHV
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.25 mg/mL (determined by Bradford assay)
Storage Buffer	20mM Tris-HCl buffer (pH 8.0) containing 40% glycerol, 0.1M NaCl, 1mM DTT
GENE INFORMATION	
Gene Name	SEPTIN2 septin 2 [Homo sapiens (human)]
Official Symbol	SEPTIN2

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Synonyms	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
Gene ID	4735
mRNA Refseq	NM_006155
Protein Refseq	NP_006146
MIM	601506
UniProt ID	Q15019
SDS-PAGE	 3 µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.