

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

Cat. No. SEPTIN2-451H Lot. No. (See product label)

SPECIFICATION

Product Overview

SEPT2 MS Standard C13 and N15-labeled recombinant protein (NP_004395) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species

Human

Source

HEK293

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 microbial pathogens, *Listeria monocytogenes* and *Shigella flexneri*.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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

Molecular Mass	41.5 kDa
AA Sequence	MSKQQPTQFINPETPGYVGFANLPNQVHRKSVKKGFEFTLMVVGESGLGKSTLINSL FLTDLYPERVISGAAEKIERTVQIEASTVEIEERGVLRLTVVDTPGYGDAINCRDCFK TIISYIDEQFERYLHDESGLNRRHIIDNRVHCCFYFISPFHGLKPLDVAFMKAIHNKV NIVPVIADTLTLKERERLKKRILDEIEEHNIKIYHLPDAESDEDEDFKEQTRLLKASIP FSVVGSNQLIEAKGKKVRGRLYPWGVVEVENPEHNDFLKLRTMLITHMQDLQEVTTQ DLHYENFRSERLKRGGGRKVENEDMNKDQILLEKEAELRRMQEMIARMQAQMOMQ MQGGDGDGGALGHHVTRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 µg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.
GENE INFORMATION	
Gene Name	SEPTIN2 septin 2 [Homo sapiens (human)]
Official Symbol	SEPTIN2
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

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Gene ID	4735
mRNA Refseq	NM_004404
Protein Refseq	NP_004395
MIM	601506
UniProt ID	Q15019
SDS-PAGE	