

KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1688

Product Information

Application	WB, FC
Primary Accession	Q15019
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB1525
Calculated MW	41487
Gene Name	SEPTIN2
Aliases	Septin 2; KIAA0158; Septin-2; HNedd5; Pnutl3; DIFF6; NEDD5; SEPT2; Neural Precursor Cell Expressed, Developmentally Down-Regulated 5; NEDD-5; Neural Precursor Cell Expressed Developmentally Down-Regulated Protein 5; Epididymis Secretory Sperm Binding Protein
Immunogen	A synthesized peptide derived from human Septin 2

Additional Information

Gene ID	4735
Other Names	Septin-2, Neural precursor cell expressed developmentally down-regulated protein 5, NEDD-5, SEPTIN2 (HGNC:7729)

Protein Information

Name	SEPTIN2 (HGNC:7729)
Function	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*.

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, spindle. Chromosome, centromere, kinetochore. Cleavage furrow. Midbody. Cytoplasm, cell cortex. Cell projection, cilium membrane. Cell projection, cilium, flagellum. Note=In metaphase cells, localized within the microtubule spindle. At the metaphase plate, in close apposition to the kinetochores of the congressed chromosomes. In cells undergoing cytokinesis, localized to the midbody, the ingressing cleavage furrow, and the central spindle. During bacterial infection, displays a collar shape structure next to actin at the pole of invading bacteria. In epithelial cells, colocalizes with polyglutamylated tubulin around the trans-Golgi network, as well as juxatnuclear and proximal Golgi apparatus. Localizes at the base of the cilia near the morphological distinction between the cilia and plasma membranes Expressed in the sperm annulus, neck and tail (PubMed:25588830)

Tissue Location

Widely expressed (PubMed:15915442). Expressed in the liver (PubMed:19165576).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.