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Septin 2 Antibody

Rabbit mAb
Catalog # AP91717

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	Q15019
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	DIFF6; hNEDD5; KIAA0158; NEDD5; Pnutl3; SEPT2; septin 2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	41487

Additional Information

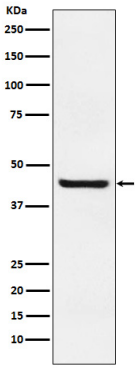
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Septin 2
Description	The septins are a family of cytoskeletal GTPases that play an essential role in cytokinesis in mammalian cells. Septin 2 (Nedd5) is a mammalian septin known to associate with actin based structures such as the contractile ring and stress fibers. It is involved in cytokinesis and may assemble into a multicomponent structure.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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 splindle 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).

Images



Western blot analysis of Septin 2 expression in Jurkat cell lysate.

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