

KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1688**Specification****KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC
Primary Accession	Q15019
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 41 kDa , observed , 41 kDa KDa
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

KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody - Additional InformationGene ID **4735****Other Names**

Septin-2, Neural precursor cell expressed developmentally down-regulated protein 5, NEDD-5, SEPTIN2 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=7729)
target="_blank">HGNC:7729)

KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody - 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:<http://www.uniprot.org/citations/25588830> target="_blank">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. Found in the sperm annulus (PubMed:25588830).

Tissue Location

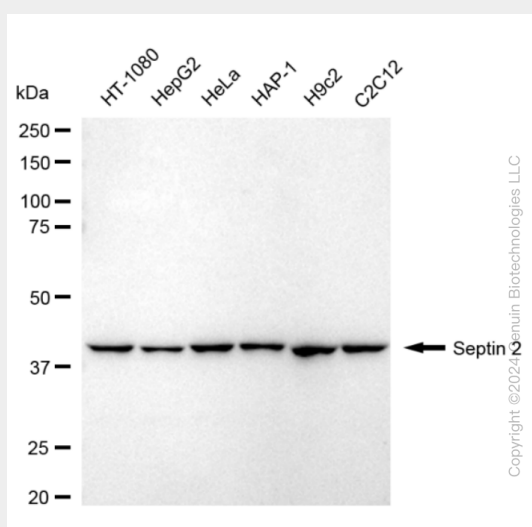
Widely expressed. Up-regulated in liver cancer.

KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

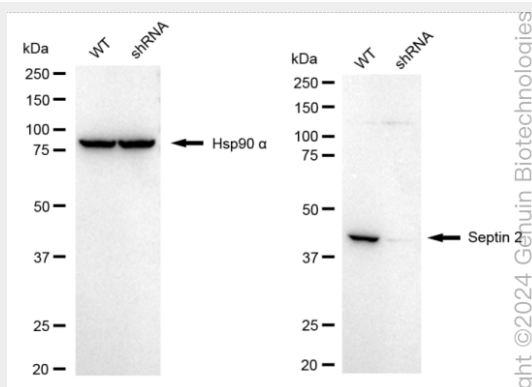
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-Septin 2 Rabbit Monoclonal Antibody - Images

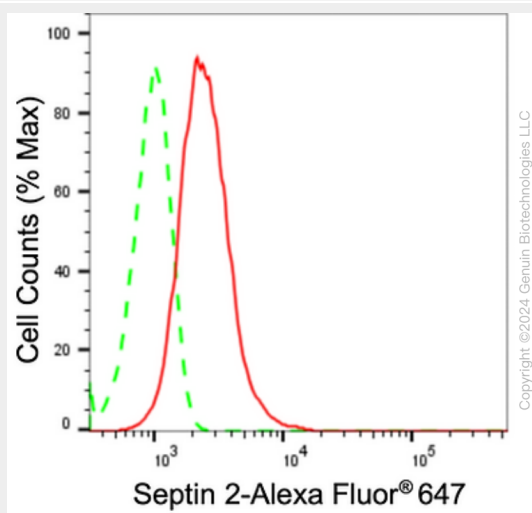


Western blotting analysis using anti-Septin 2 antibody (Cat#AGI1688). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Septin 2 antibody (Cat#AGI1688, 1:5,000) and HRP-conjugated goat anti-rabbit secondary

antibody respectively.



Western blotting analysis using anti-septin 2 antibody (Cat#AGI1688). Septin 2 expression in wild-type (WT) and septin 2 (SEPTIN2) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-septin 2 antibody (Cat#AGI1688, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Septin 2 expression in C2C12 cells using anti-Septin 2 antibody (Cat#AGI1688, 1:2,000). Green, isotype control; red, Septin 2.