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SEPT12 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19298c

Product Information

Application	WB, E
Primary Accession	Q8IYM1
Other Accession	NP_001147930.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39854
Calculated MW	40748
Antigen Region	218-244

Additional Information

Gene ID	124404
Other Names	Septin-12, SEPT12
Target/Specificity	This SEPT12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 218-244 amino acids from the Central region of human SEPT12.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SEPT12 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SEPTIN12 (HGNC:26348)
Synonyms	SEPT12
Function	Filament-forming cytoskeletal GTPase (By similarity). Involved in the morphogenesis of sperm heads and the elongation of sperm tails probably

	implicating the association with alpha- and beta- tubulins (PubMed:24213608). Facilitates the formation of Septin filament structures with SEPTIN7, SEPTIN6, SEPTIN2 and SEPTIN4 at the sperm annulus (PubMed:25588830, PubMed:28346465). Correct formation of the annulus is required for development of normal structural morphology and motility of the sperm during steps 13 to 16 of spermiogenesis (PubMed:25588830). Essential component of the LMNB1/SUN5/SEPT12 bridge that connects the sperm proximal centriole to the implantation fossa, the bridge functions to prevent detachment of the proximal centriole from the posterior nucleus during steps 13 to 16 of spermiogenesis (PubMed:38870534). Required for PLCZ1 localization at the sperm acrosome during spermiogenesis (By similarity). May also play a role in the initiation of calcium oscillations in embryos (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, spindle. Nucleus Cell projection, cilium, flagellum Cytoplasmic vesicle, secretory vesicle, acrosome {ECO:0000250|UniProtKB:A0A2R8VJU7}. Note=At interphase, forms a filamentous structure in the cytoplasm. During anaphase, translocates to the central spindle region and to the midbody during cytokinesis Colocalized with SPAG4 at the nuclear periphery in round spermatids During sperm head formation in elongating spermatids, expressed at the acrosome, perinuclear mantle of the manchette structure and the sperm neck (By similarity). Expressed at mitochondrial materials in elongating spermatids (By similarity). Expressed in mature sperm at the annulus, neck and tail (By similarity). Expressed at the midpiece in ejaculated mature sperm (By similarity) {ECO:0000250|UniProtKB:A0A2R8VJU7, ECO:0000269|PubMed:18047794, ECO:0000269|PubMed:20801438, ECO:0000269|PubMed:22275165, ECO:0000269|PubMed:25775403}
Tissue Location	Widely expressed. Expressed in lymph node.

Background

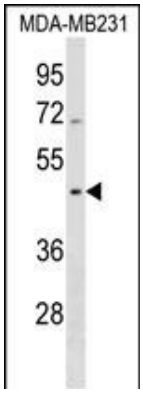
Septins, such as SEPT12, are conserved GTP-binding proteins that function as dynamic, regulatable scaffolds for the recruitment of other proteins. They are involved in membrane dynamics, vesicle trafficking, apoptosis, and cytoskeleton remodeling, as well as infection, neurodegeneration, and neoplasia (Hall et al., 2005 [PubMed 15915442]).

References

Lin, Y.H., et al. Am. J. Pathol. 174(5):1857-1868(2009)
Ding, X., et al. Mol. Cells 25(3):385-389(2008)
Ding, X., et al. J. Biochem. Mol. Biol. 40(6):973-978(2007)
Lamesch, P., et al. Genomics 89(3):307-315(2007)
Hall, P.A., et al. J. Pathol. 206(3):269-278(2005)

Images

SEPT12 Antibody (Center)(Cat. #AP19298c) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the SEPT12 antibody detected the SEPT12 protein (arrow).



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