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SEPT4 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP7621b

Specification

SEPT4 Antibody (C-term) Blocking peptide - Product Information

Primary Accession O43236

SEPT4 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 5414

Other Names
Septin-4, Apoptosis-related protein in the TGF-beta signaling pathway, ARTS, Bradeion beta, Brain protein H5, CE5B3 beta, Cell division control-related protein 2, hCDCREL-2, Cerebral protein 7, Peanut-like protein 2, SEPT4, ARTS, PNUTL2, SEP4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7621b was selected from the C-term region of human PNUTL2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SEPT4 Antibody (C-term) Blocking peptide - Protein Information

Name SEPTIN4 (HGNC:9165)

Function
Filament-forming cytoskeletal GTPase (Probable). Pro- apoptotic protein involved in LGR5-positive intestinal stem cell and Paneth cell expansion in the intestines, via its interaction with XIAP (By similarity). May also play a role in the regulation of cell fate in the intestine (By similarity). Positive regulator of apoptosis involved in hematopoietic stem cell homeostasis; via its interaction with XIAP (By similarity). Negative regulator of repair and hair follicle regeneration in response to injury, due to inhibition of hair follicle stem cell proliferation, potentially via its interaction with XIAP (By similarity). Plays an important role in male fertility and sperm motility (By similarity). During spermiogenesis, essential for the establishment of the annulus (a fibrous ring structure connecting the midpiece and the principal piece of the sperm flagellum) which is a requisite for the structural and mechanical integrity of the sperm (By similarity). Involved in the migration of cortical neurons

and the formation of neuron leading processes during embryonic development (By similarity). Required for dopaminergic metabolism in presynaptic autoreceptors; potentially via activity as a presynaptic scaffold protein (By similarity).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P28661}. Cell projection, cilium, flagellum Cytoplasmic vesicle, secretory vesicle Cell projection, axon {ECO:0000250|UniProtKB:P28661}. Cell projection, dendrite {ECO:0000250|UniProtKB:P28661}. Perikaryon {ECO:0000250|UniProtKB:P28661}. Synapse Note=In platelets, found in areas surrounding alpha-granules (PubMed:15116257). Found in the sperm annulus, a fibrous ring structure connecting the midpiece and the principal piece of the sperm flagellum (PubMed:25588830). Expressed and colocalized with SLC6A3 and SNCA in axon terminals, especially at the varicosities (By similarity) {ECO:0000250|UniProtKB:P28661, ECO:0000269|PubMed:15116257, ECO:0000269|PubMed:25588830}

Tissue Location
Widely expressed in adult and fetal tissues with highest expression in adult brain (at protein level), heart, liver and adrenal gland and fetal heart, kidney, liver and lung. Expressed in presynaptic terminals of dopaminergic neurons projecting from the substantia nigra pars compacta to the striatum (at protein level) (PubMed:17296554). Expressed in axonal varicosities in dopaminergic nerve terminals (at protein level) (PubMed:17296554). Expressed in the putamen and in the adjacent cerebral cortex (at protein level) (PubMed:17296554). Expressed in colonic crypts (at protein level) (PubMed:30389919). Also expressed in colorectal cancers and malignant melanomas. Expressed in platelets.

SEPT4 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

SEPT4 Antibody (C-term) Blocking peptide - Images

SEPT4 Antibody (C-term) Blocking peptide - Background

PNUTL2 is a member of the septin family of nucleotide binding proteins, originally described in yeast as cell division cycle regulatory proteins. Septins are highly conserved in yeast, Drosophila, and mouse and appear to regulate cytoskeletal organization. The protein is thought to be part of a complex involved in cytokinesis.

SEPT4 Antibody (C-term) Blocking peptide - References

Garcia,W., Rodrigues,N.C. Biochim. Biophys. Acta 1784 (11), 1720-1727 (2008)Garcia,W., de Araujo,A.P. Biochemistry 46 (39), 11101-11109 (2007)Paavola,P., Horelli-Kuitunen,N. Genomics 55 (1), 122-125 (1999)