10320 Camino Santa Fe, Suite G
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SEPT4 (aa425-435) Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF3355a

Specification

SEPT4 (aa425-435) Antibody (internal region) - Product Information

Application	**WB, IHC, FC, Pep-ELISA**
Primary Accession	O43236
Other Accession	NP_004565.1, NP_536341.1, NP_001185642.1, 5414, 18952 (mouse)
Reactivity	**Human, Mouse**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**55098**

SEPT4 (aa425-435) Antibody (internal region) - 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

Dilution
WB~~1:1000
IHC~~1:100~500
FC~~1:10~50
Pep-ELISA~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SEPT4 (aa425-435) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

SEPT4 (aa425-435) Antibody (internal region) - 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 (aa425-435) Antibody (internal region) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SEPT4 (aa425-435) Antibody (internal region) - Images

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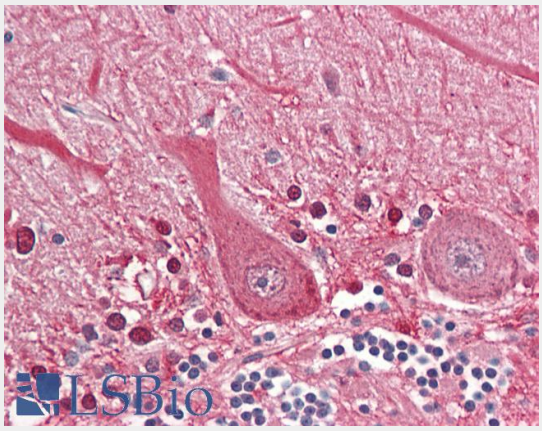
AF3355a (1 µg/ml) staining of Human Heart lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

EB10427 (1µg/ml) staining of Human Heart lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



EB10427 (3.75µg/ml) staining of paraffin embedded Human Cerebellum. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

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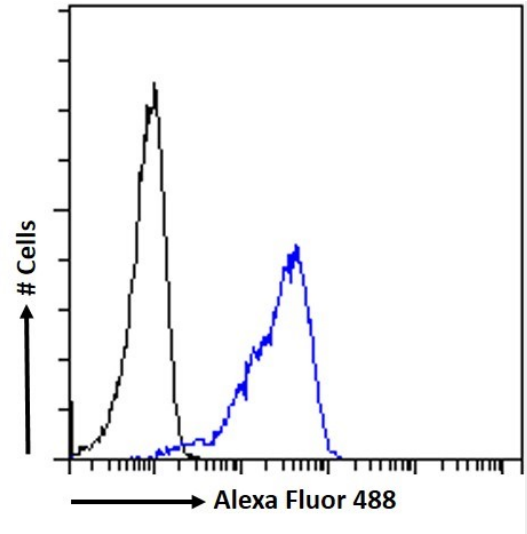
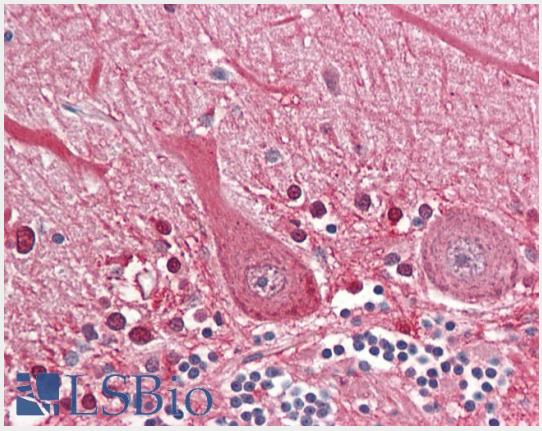


EB10427 Flow cytometric analysis of paraformaldehyde fixed Jurkat cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line)

EB10427 (1µg/ml) staining of Human Heart lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



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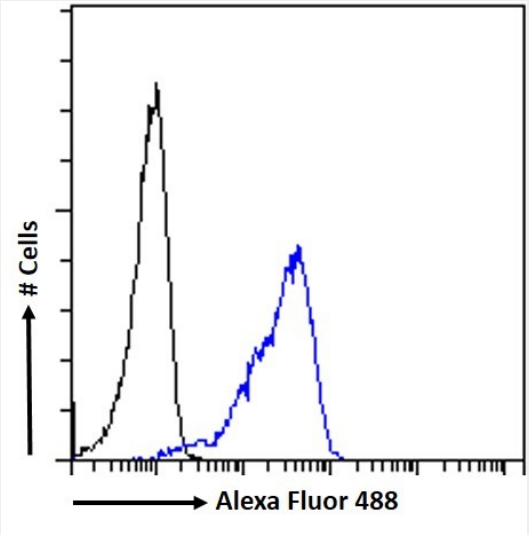

EB10427 Flow cytometric analysis of paraformaldehyde fixed Jurkat cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line)

SEPT4 (aa425-435) Antibody (internal region) - Background

This antibody is expected to recognize isoform 1 (NP_004565.1), 3 (NP_536341.1) and 4 (NP_001185642.1). Amino acid numbering in name refers to NP_004565.1 sequence.

SEPT4 (aa425-435) Antibody (internal region) - References

Absence of annulus in human asthenozoospermia: case report. Lhuillier P, Rode B, Escalier D, Lorès P, Dirami T, Bienvenu T, Gacon G, Dulioust E, Touré A Human reproduction (Oxford, England) 2009 Jun 24 (6): 1296-303. PMID: 19221096