10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SEPT9 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6215a

Product Information

Application	IHC-P, WB, FC, E
Primary Accession	Q9UHD8
Other Accession	NP_006631.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	65401
Antigen Region	557-586

Additional Information

Gene ID	10801
Other Names	Septin-9, MLL septin-like fusion protein MSF-A, MLL septin-like fusion protein, Ovarian/Breast septin, Ov/Br septin, Septin D1, SEPT9, KIAA0991, MSF
Target/Specificity	This SEPT9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 57-85 amino acids from the C-terminal region of human SEPT9.
Dilution	IHC-P~~1:100~500 WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	SEPT9 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SEPTIN9 (HGNC:7323)
Synonyms	KIAA0991, MSF, SEPT9
Function	Filament-forming cytoskeletal GTPase (By similarity). May play a role in

	cytokinesis (Potential). May play a role in the internalization of 2 intracellular microbial pathogens, Listeria monocytogenes and Shigella flexneri.
Cellular Location	Cytoplasm, cytoskeleton. Note=In an epithelial cell line, concentrates at cell-cell contact areas. After TGF-beta1 treatment and induction of epithelial to mesenchymal transition, colocalizes partly with actin stress fibers. During bacterial infection, displays a collar shape structure next to actin at the pole of invading bacteria
Tissue Location	Widely expressed. Isoforms are differentially expressed in testes, kidney, liver heart, spleen, brain, peripheral blood leukocytes, skeletal muscle and kidney. Specific isoforms appear to demonstrate tissue specificity. Isoform 5 is the most highly expressed in fetal tissue. Isoform 1 is detected in all tissues except the brain and thymus, while isoform 2, isoform 3, and isoform 4 are detected at low levels in approximately half of the fetal tissues

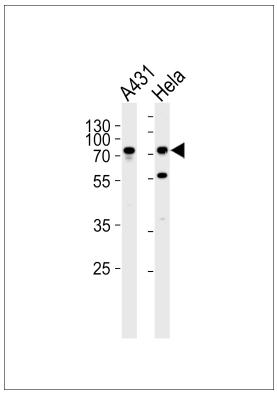
Background

The maf oncogene was identified by structural analysis of the AS42 avian transforming retrovirus genome. The Maf family is divided into two subclasses, large Mafs (vMaf, cMaf, MafB and Nrl) and small Mafs (MafF, MafK, and MafG). Both subclasses contain leucinezipper motifs, which allow homodimerization as well as heterodimerization with a variety of other bZip transcription factors. Large Mafs also contain an acidic transactivation domain absent in the small Maf proteins. Although they do not possess inherent transactivation activity, small Maf proteins can act as positive regulators of transcription by targeting transcriptionally active dimerization partners to specific DNA regulatory elements. Conversely, small Mafs can act also as negative regulators of transcription by recruiting transcriptional repressors or by forming homodimers that can replace active dimers. Human MafF was isolated in a yeast one-hybrid system from a human myometrium cDNA library. Human MAFF encodes a 164 amino acids proten. Like other small MAFF proteins, it contains an extended leucine zipper structure and lacks an N-terminal transactivating domain. The three small Maf proteins have been implicated in a number of physiological processes, including development, differentiation, haematopoiesis and stress response. Interestingly, these three proteins regulate the stress response via different mechanisms.

References

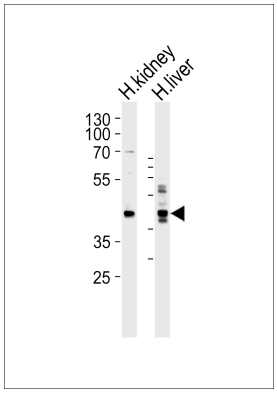
Proc. Natl. Acad. Sci. U.S.A. 96:6428-6433(1999). Cancer Res. 60: 4729-4734, 2000. Oncogene 20: 5930-5939, 2001.

Images

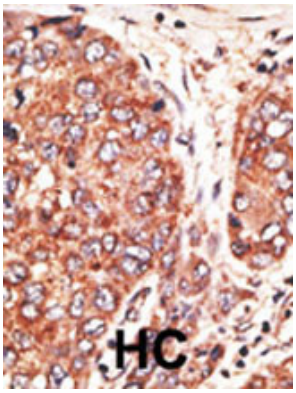


Western blot analysis of lysates from A431, Hela cell line (from left to right), using SEPT9 Antibody (C-term)(Cat. #AP6215a). AP6215a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

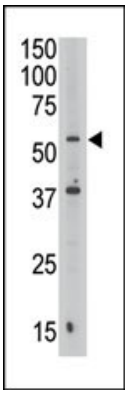
Western blot analysis of lysates from human kidney and liver tissue lysate (from left to right), using SEPT9 Antibody (C-term)(Cat. #AP6215a). AP6215a was diluted



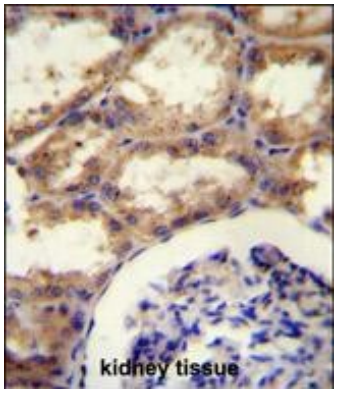
at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

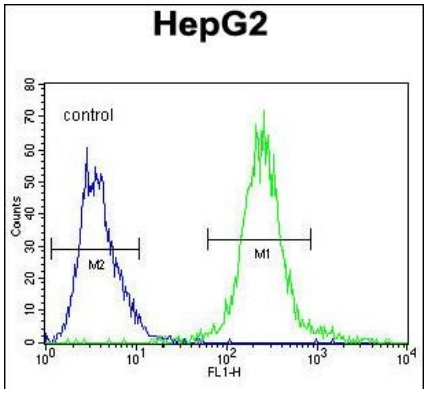


The anti-SEPT9 Pab (Cat. #AP6215a) is used in Western blot to detect SEPT9 in Jurkat cell lysate.



SEPT9 Antibody (A555) (Cat. #AP6215a)immunohistochemistry analysis in formalin fixed and paraffin embedded kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SEPT9 Antibody (A555) for immunohistochemistry. Clinical relevance has not been evaluated.

SEPT9 Antibody (A555) (Cat. #AP6215a) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Citations

- Targeted knockdown of SEPT9_v1 inhibits tumor growth and angiogenesis of human prostate cancer cells concomitant with disruption of hypoxia-inducible factor-1 pathway.
- Disruption of transforming growth factor-beta signaling by five frequently methylated genes leads to head and neck squamous cell carcinoma pathogenesis.