

Code No. 18987

**Anti-Human
Septin 4 (N) Rabbit IgG Affinity Purify**Volume : 100 µg

Introduction : A cytoskeletal or scaffold protein family named "septin" has been shown to be involved in diverse phenomena in the living body, including cell division. The term "septin" is derived from "septation," which means division. The protein was discovered as a GTP-bound protein (a polymer) indispensable for the division of yeast cells. Several to dozens of septin subunits are linked together to form filaments tens of nanometers in length. Multiple such filaments combine to form structures assuming the shapes of ribbons, rings or spirals, measuring on the order of submicrons in size. In multicellular organisms, septin is known to be involved in cell division as well as in diverse cell functions after differentiation, although the exact nature of its actions remain to be determined.

Among the members of the mammalian septin family, septin 4 (H5) is unique in terms of its primary structure and expression pattern. While its expression has also been demonstrated in the heart, liver and testis, it is most prominently expressed in some neurons and glial cells. It has been suggested that septin 4 may not usually be involved in cell division. Abnormal levels or locations of septin expression have been reported in humans with cancer, degenerative neurological diseases (e.g., Parkinsonism), male sterility, etc.

Antigen : Synthetic peptide of the N terminal part of Human Septin 4.
(GKLDPYDSSSEDDKEYVG)

Purification : Purified with antigen peptide

Form : Lyophilized product from 1 % BSA in PBS containing 0.05 % NaN₃

How to use : 1.0 mL deionized water will be added to the product (the conc. comes up 100 µg /mL)

Stability : Lyophilized product, 5 years at 2 – 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues by several techniques such as Avidin Biotin Complex (ABC) Method. The optimal concentration is about 1 - 5 µg/mL, however, the concentration should be optimized by each laboratory.
: This antibody can be used for western blotting in concentration of 1 - 5 µg /mL.

Specificity : Cross reacts with mouse and rat.

Reference : 1. Kinoshita, M. (2006). Diversity of septin scaffolds. *Curr Opin Cell Biol.* 18 (1), 54-60.
2. Ihara, M., Kinoshita, A., Yamada, S., Tanaka, H., Tanigaki, A., Kitano, A., Goto, M., Okubo, K., Nishiyama, H., Ogawa, O., Takahashi, C., Itohara, S., Nishimune, Y., Noda, M., Kinoshita, M. (2005). Cortical organization by the septin cytoskeleton is essential for structural and mechanical integrity of mammalian spermatozoa. *Dev Cell.* 8 (3), 343-52.
3. Ihara, M., Tomimoto, H., Kitayama, H., Morioka, Y., Akiguchi, I., Shibasaki, H., Noda, M., Kinoshita, M. (2003). Association of the cytoskeletal GTP-binding protein Sept4/H5 with cytoplasmic inclusions found in Parkinson's disease and other synucleinopathies. *J Biol Chem.* 278 (26), 24095-102.

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