

# Septin (H-300): sc-134553

## BACKGROUND

The septins are a family of GTPase enzymes, some of which are required for cytokinesis and others of which are associated with exocytosis. Members of the septin family can form heteropolymer complexes and also play a role in the organization of new growth in organisms. The transcriptional regulation of all septins is complex, resulting in alternatively spliced variants. Septin 6 is a widely expressed cytoplasmic protein that contains an ATP-GTP binding motif and three nuclear targeting sequences in its C-terminus. Septin 8 interacts with both Septin 5 and cell division cycle related-1 (CDCrel-1), and may play an important role in the functional regulation of hPFTAIRE1, a member of the Cdc2-related kinase family that is localized to the cytoplasm. Like other septin family members, Septin 10, Septin 11 and Septin 14 display GTP-binding and GTPase activity and are suggested to play a role in cytokinesis.

## REFERENCES

1. Trimble, W.S. 1999. Septins: a highly conserved family of membrane-associated GTPases with functions in cell division and beyond. *J. Membr. Biol.* 169: 75-81.
2. Xue, J., et al. 2000. Phosphorylation of a new brain-specific septin, G-septin, by cGMP-dependent protein kinase. *J. Biol. Chem.* 275: 10047-10056.
3. Kinoshita, M. 2003. Assembly of mammalian septins. *J. Biochem.* 134: 491-496.
4. Hanai, N., et al. 2004. Biochemical and cell biological characterization of a mammalian septin, Sept11. *FEBS Lett.* 568: 83-88.
5. Hall, P.A., et al. 2005. Expression profiling the human septin gene family. *J. Pathol.* 206: 269-278.
6. Bläser, S., et al. 2006. Human endothelial cell septins: SEPT11 is an interaction partner of SEPT5. *J. Pathol.* 210: 103-110.
7. Mostowy, S., et al. 2009. Septin 11 restricts InIB-mediated invasion by *Listeria*. *J. Biol. Chem.* 284: 11613-11621.

## SOURCE

Septin (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Septin 11 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Septin (H-300) is recommended for detection of Septin 6, 8, 10, 11 and 14 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Septin (H-300) is also recommended for detection of Septin 6, 8, 10, 11 and 14 in additional species, including equine, bovine, porcine and avian.

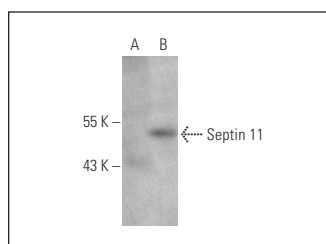
Molecular Weight of Septin: 40-65 kDa.

Positive Controls: Septin 11 (h): 293T Lysate: sc-116662.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Septin (H-300): sc-134553. Western blot analysis of Septin 11 expression in non-transfected: sc-117752 (A) and human Septin 11 transfected: sc-116662 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **Septin (E-4): sc-271670**, our highly recommended monoclonal alternative to Septin (H-300).