

Septin 8 (D-3): sc-390071

BACKGROUND

Septins are members of a conserved family of cytoskeletal GTPases, specifically belonging to the large superclass of P-loop GTPases. Septin proteins form homo- and hetero-oligomeric polymers that accumulate into higher-order filaments which may function as dynamic protein scaffolds. Septins play an important role in vesicle trafficking, apoptosis, cytoskeleton remodeling, infection, neurodegeneration, neoplasia and cytokinesis. Septin 8 is a 508 amino acid protein that is expressed in the brain, cardiovascular regions, prostate, testis and ovary. Septin 8 interacts with both Septin 5 and cell division cycle related-1 (CDCrel-1). Septin 8 may play an important role in the functional regulation of hPFTARE1, a member of the Cdc2-related kinase family that is localized in cytoplasm. Septin 8, Septin 4 and Septin 5 surround α -granules, implicating these three septins as components of the septin complex in platelets and contributing to platelet biology.

REFERENCES

1. Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. *DNA Res.* 3: 321-329, 341-354.
2. Sudbery, P.E. 2001. The germ tubes of *Candida albicans* hyphae and pseudohyphae show different patterns of septin ring localization. *Mol. Microbiol.* 41: 19-31.
3. Yang, T., et al. 2002. KIAA0202, a human septin family member, interacting with hPFTARE1. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 34: 520-525.
4. Castillon, G.A., et al. 2003. Septins have a dual role in controlling mitotic exit in budding yeast. *Curr. Biol.* 13: 654-658.
5. Longtine, M.S. and Bi, E. 2003. Regulation of septin organization and function in yeast. *Trends Cell Biol.* 13: 403-409.
6. Bläser, S., et al. 2004. The novel human platelet septin Septin 8 is an interaction partner of Septin 4. *Thromb. Haemost.* 91: 959-966.

CHROMOSOMAL LOCATION

Genetic locus: SEPT8 (human) mapping to 5q31.1; Sept8 (mouse) mapping to 11 B1.3.

SOURCE

Septin 8 (D-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 271-305 within an internal region of Septin 8 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390071 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Septin 8 (D-3) is recommended for detection of Septin 8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 8 (D-3) is also recommended for detection of Septin 8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Septin 8 siRNA (h): sc-61530, Septin 8 siRNA (m): sc-61531, Septin 8 shRNA Plasmid (h): sc-61530-SH, Septin 8 shRNA Plasmid (m): sc-61531-SH, Septin 8 shRNA (h) Lentiviral Particles: sc-61530-V and Septin 8 shRNA (m) Lentiviral Particles: sc-61531-V.

Molecular Weight of Septin 8: 50 kDa.

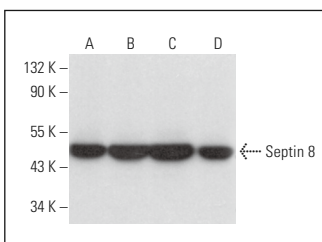
Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

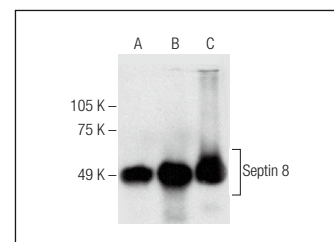
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Septin 8 (D-3): sc-390071. Western blot analysis of Septin 8 expression in K-562 (A), HEL 92.1.7 (B), NIH/3T3 (C) and KNRK (D) whole cell lysates.



Septin 8 (D-3): sc-390071. Western blot analysis of Septin 8 expression in HeLa (A) and NTERA-2 cl.D1 (B) whole cell lysates and human hippocampus tissue extract (C).

STORAGE

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

RESEARCH USE

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