

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 hPFTAIRE1, a member of the Cdc2-related kinase family that is localized in cytoplasm. Septin 8, Septin 4 and Septin 5 surround a granules, implicating these three septins as components of the septin complex in platelets and contributing to platelet biology.

REFERENCES

- 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.
- 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.
- Yang, T., et al. 2002. KIAA0202, a human septin family member, interacting with hPFTAIRE1. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 34: 520-525.
- Castillon, G.A., et al. 2003. Septins have a dual role in controlling mitotic exit in budding yeast. *Curr. Biol.* 13: 654-658.
- Longtine, M.S. and Bi, E. 2003. Regulation of septin organization and function in yeast. *Trends Cell Biol.* 13: 403-409.
- 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 µg 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 µg 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 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 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.

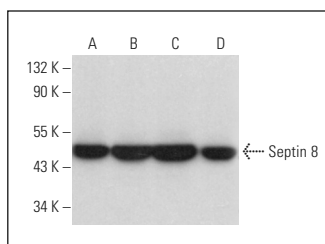
Molecular Weight of Septin 8: 50 kDa.

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.

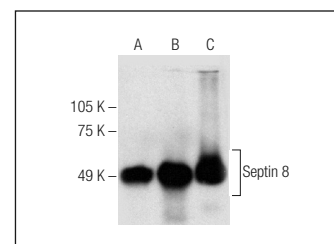
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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.