

# Stannin (N-19): sc-47430

## BACKGROUND

Stannin, also designated Snn, is a membrane-bound protein localized primarily to mitochondria and vesicular organelles, and is involved in the cytotoxic response to organotins. Stannin, which contains a transmembrane domain and a CXC metal binding motif, is localized to tissues with trimethyltin (TMT) sensitivity, such as lung, kidney, spleen, immune system and the central nervous system. Stannin is capable of dealkylating organotin compounds, which may mediate selective alkyltin toxicity. Stannin is also thought to detect mitochondrial damage and, through cross-talk with nuclear compartments, mediate growth and apoptosis.

## REFERENCES

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3. Davidson, C.E., Reese, B.E., Billingsley, M.L. and Yun, J.K. 2004. Stannin, a protein that localizes to the mitochondria and sensitizes NIH-3T3 cells to trimethyltin and dimethyltin toxicity. *Mol. Pharmacol.* 66: 855-863.
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5. Reese, B.E., Davidson, C., Billingsley, M.L. and Yun, J. 2005. Protein kinase C  $\epsilon$  regulates tumor necrosis factor- $\alpha$ -induced stannin gene expression. *J. Pharmacol. Exp. Ther.* 314: 61-69.
6. Billingsley, M.L., Yun, J., Reese, B.E., Davidson, C.E., Buck-Koehntop, B.A. and Veglia, G. 2006. Functional and structural properties of stannin: roles in cellular growth, selective toxicity, and mitochondrial responses to injury. *J. Cell. Biochem.* 98: 243-250.
7. Reese, B.E., Krissinger, D., Yun, J.K. and Billingsley, M.L. 2006. Elucidation of stannin function using microarray analysis: implications for cell cycle control. *Gene Espr.* 13: 41-52.

## CHROMOSOMAL LOCATION

Genetic locus: SNN (human) mapping to 16p13.13; Snn (mouse) mapping to 16 A1.

## SOURCE

Stannin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Stannin of human origin.

## 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.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47430 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Stannin (N-19) is recommended for detection of Stannin of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Stannin (N-19) is also recommended for detection of Stannin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Stannin siRNA (h): sc-61618, Stannin siRNA (m): sc-61619, Stannin shRNA Plasmid (h): sc-61618-SH, Stannin shRNA Plasmid (m): sc-61619-SH, Stannin shRNA (h) Lentiviral Particles: sc-61618-V and Stannin shRNA (m) Lentiviral Particles: sc-61619-V.

Molecular Weight of Stannin: 10 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

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