

# Statherin (N-16): sc-28112

## BACKGROUND

Human Statherin (STT) is a low- $M_r$  acidic phosphoprotein comprised of 43 amino acids. It is secreted mainly by salivary glands and acts as an inhibitor of precipitation of calcium phosphate salts in the oral cavity. Statherin is one of the major components of human submandibular-sublingual saliva. Statherin inhibits precipitation of calcium phosphate salts in the oral cavity. Fractions of Statherin-containing saliva exhibit a strong tendency to boundary lubrication. It is the amphipathic nature of Statherin which enables it to function as a lubricant on tooth enamel.

## REFERENCES

1. Sabatini, L., et al. 1990. Structure and sequence determination of the gene encoding human salivary Statherin. *Gene* 89: 245-251.
2. Ramasubbu, N., et al. 1991. Large-scale purification and characterization of the major phosphoproteins and mucins of human submandibular-sublingual saliva. *Biochem. J.* 280: 341-352.
3. Douglas, W., et al. 1991. Statherin: a major boundary lubricant of human saliva. *Biochem. Biophys. Res. Commun.* 180: 91-97.
4. Raj, P.A., et al. 1992. Salivary Statherin. Dependence on sequence, charge, hydrogen bonding potency, and helical conformation for adsorption to hydroxyapatite and inhibition of mineralization. *J. Biol. Chem.* 267: 5968-5976.
5. Amano, A., et al. 1996. Structural domains of *Porphyromonas gingivalis* recombinant fimbriillin that mediate binding to salivary proline-rich protein and Statherin. *Infect. Immun.* 64: 1631-1637.

## CHROMOSOMAL LOCATION

Genetic locus: STATH (human) mapping to 4q13.3.

## SOURCE

Statherin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Statherin of human origin.

## 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-28112 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Statherin (N-16) is recommended for detection of Statherin of 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).

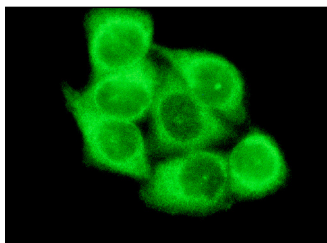
Suitable for use as control antibody for Statherin siRNA (h): sc-106576, Statherin shRNA Plasmid (h): sc-106576-SH and Statherin shRNA (h) Lentiviral Particles: sc-106576-V.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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.

## DATA



Statherin (N-16): sc-28112. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Akutsu, T., et al. 2010. Applicability of ELISA detection of statherin for forensic identification of saliva. *Int. J. Legal Med.* 124: 493-498.
2. Isola, M., et al. 2010. Electron microscopic immunogold localization of statherin in human minor salivary glands. *J. Anat.* 216: 572-576.
3. Isola, M., et al. 2011. Reduced statherin reactivity of human submandibular gland in diabetes. *Oral Dis.* 17: 217-220.
4. Isola, M., et al. 2011. Diabetes affects statherin expression in human labial glands. *Oral Dis.* 17: 685-689.
5. Cossu, M., et al. 2011. Immunoreactivity of the salivary protein statherin in human male accessory sex glands. *Prostate* 71: 671-674.
6. Sakurada, K., et al. 2011. Expression of statherin mRNA and protein in nasal and vaginal secretions. *Leg. Med.* 13: 309-313.
7. Isola, M., et al. 2012. Diabetes reduces statherin in human parotid: immunogold study and comparison with submandibular gland. *Oral Dis.* 18: 360-364.

## 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.