

secretin (N-20): sc-21023

BACKGROUND

Secretin is a 27-amino acid hormone produced by specific endocrine cells, S cells, located in the mucosa of the proximal small intestine. Secretin is known to be a potent stimulus for the secretion of bicarbonate-rich pancreatic juice. Secretion of secretin is stimulated by the presence of either acidic pH or fatty acids in the duodenum. Secretin is synthesized as a larger precursor. The deduced amino acid sequence included a signal peptide, an amino-terminal peptide, secretin itself, and a 72-amino acid carboxy-terminal peptide. Secretin stimulates ductal bile secretion by directly interacting with cholangiocytes. It stimulates exocytosis in cholangiocytes, which transport water mainly via the water channel aquaporin-1. Secretin deficiency may be implicated in autistic syndrome, suggesting that the hormone could have a neuroendocrine function in addition to its role in digestion. The gene which encodes secretin maps to human chromosome 11p15.5.

REFERENCES

1. Bayliss, W. and Starling, E.H. 1902. The mechanism of pancreatic secretion. *J. Physiol.* 28: 325-353.
2. Mutt, V., et al. 1970. Structure of porcine secretin. The amino acid sequence. *Eur. J. Biochem.* 15: 513-519.
3. Kopin, A.S., et al. 1990. Secretin: structure of the precursor and tissue distribution of the mRNA. *Proc. Natl. Acad. Sci. USA* 87: 2299-2303.
4. Marinelli, R.A., et al. 1997. Secretin promotes osmotic water transport in rat cholangiocytes by increasing aquaporin-1 water channels in plasma membrane. Evidence for a secretin-induced vesicular translocation of aquaporin-1. *J. Biol. Chem.* 272: 12984-12988.
5. Whitmore, T.E., et al. 2000. Human secretin (SCT): gene structure, chromosome location, and distribution of mRNA. *Cytogenet. Cell Genet.* 90: 47-52.

CHROMOSOMAL LOCATION

Genetic locus: SCT (human) mapping to 11p15.5; Sct (mouse) mapping to 7 F5.

SOURCE

secretin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of secretin 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.

Blocking peptide available for competition studies, sc-21023 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

secretin (N-20) is recommended for detection of secretin of mouse, rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

secretin (N-20) is also recommended for detection of secretin in additional species, including equine, canine and porcine.

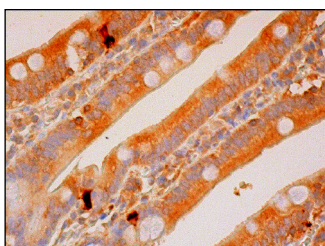
Suitable for use as control antibody for secretin siRNA (h): sc-39534, secretin siRNA (m): sc-39535, secretin shRNA Plasmid (h): sc-39534-SH, secretin shRNA Plasmid (m): sc-39535-SH, secretin shRNA (h) Lentiviral Particles: sc-39534-V and secretin shRNA (m) Lentiviral Particles: sc-39535-V.

Molecular Weight of secretin: 16 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



secretin (N-20): sc-21023. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.