



secretin receptor (E-9): sc-166112

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: SCTR (human) mapping to 2q14.2.

SOURCE

secretin receptor (E-9) is a mouse monoclonal antibody raised against amino acids 33-121 mapping at the C-terminus of secretin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

secretin receptor (E-9) is available conjugated to agarose (sc-166112 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166112 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166112 PE), fluorescein (sc-166112 FITC), Alexa Fluor® 488 (sc-166112 AF488), Alexa Fluor® 546 (sc-166112 AF546), Alexa Fluor® 594 (sc-166112 AF594) or Alexa Fluor® 647 (sc-166112 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166112 AF680) or Alexa Fluor® 790 (sc-166112 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

secretin receptor (E-9) is recommended for detection of secretin precursor and active peptide of 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).

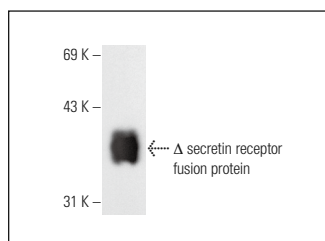
Suitable for use as control antibody for secretin siRNA (h): sc-39534, secretin shRNA Plasmid (h): sc-39534-SH and secretin shRNA (h) Lentiviral Particles: sc-39534-V.

Molecular Weight of secretin: 16 kDa.

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



secretin receptor (E-9): sc-166112. Western blot analysis of truncated human recombinant secretin receptor fusion protein.

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.

PROTOCOLS

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