SANTA CRUZ BIOTECHNOLOGY, INC.

secretin receptor (C-20): sc-26633

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Secretin, a 27 amino acid hormone, stimulates fluid and electrolyte secretion in the gastrointestinal tract, activates tyrosine hydroxylase activity in the central nervous system, and affects cardiac and renal functions. Secretin specifically binds to the secretin receptor, a member of the G protein-coupled receptor (GPCR) family 2 (also designated family B). GPCRs are characterized by seven transmembrane regions and a common signaling mechanism, by which they interact with G proteins to regulate the activity of intracellular second messengers, such as cyclic AMP, inositol phosphates, diacylglycerol, and calcium ions. The secretin receptor contains arginine residues at positions 339 and 343, which may be responsible for surface presentation and/or receptor stability, and a lysine residue at position 323, which is necessary for proper G protein-coupling and subsequent cAMP accumulation. The gene encoding the human secretin receptor maps to chromosome 2q14.2, and has significant expression in pancreas, kidney, small intestine, lung and liver.

REFERENCES

1. Patel, D.R., Kong, Y. and Sreedharan, S.P. 1995. Molecular cloning and expression of a human secretin receptor. Mol. Pharmacol. 47: 467-473.
2. Mark, H.F. and Chow, B.K. 1995. Localization of the gene encoding the secretin receptor, SCTR, on human chromosome 2q14.1 by fluorescence *in situ* hybridization and chromosome morphometry. Genomics 29: 817-818.
3. Shetzline, M.A., et al. 1998. A role for receptor kinases in the regulation of class II G protein-coupled receptors. Phosphorylation and desensitization of the secretin receptor. J. Biol. Chem. 273: 6756-6762.
4. Pang, R.T., et al. 1999. Role of N-linked glycosylation on the function and expression of the human secretin receptor. Endocrinology 140: 5102-5111.
5. Di Paolo, E., et al. 1999. Role of charged amino acids conserved in the vasoactive intestinal polypeptide/secretin family of receptors on the secretin receptor functionality. Peptides 20: 1187-1193.
6. Harmar, A.J. 2001. Family B G protein-coupled receptors. Genome Biol. 2: 3013.

CHROMOSOMAL LOCATION

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

SOURCE

secretin receptor (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of secretin receptor 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-26633 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

secretin receptor (C-20) is recommended for detection of precursor and mature secretin receptor 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 secretin receptor siRNA (h): sc-40193, secretin receptor shRNA Plasmid (h): sc-40193-SH and secretin receptor shRNA (h) Lentiviral Particles: sc-40193-V.

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.

SELECT PRODUCT CITATIONS

1. Francis, H., et al. 2008. Small mouse cholangiocytes proliferate in response to H1 histamine receptor stimulation by activation of the IP3/CaMK I/CREB pathway. Am. J. Physiol., Cell Physiol. 295: C499-C513.
2. Carpino, G., et al. 2012. Biliary tree stem/progenitor cells in glands of extrahepatic and intraheptic bile ducts: an anatomical *in situ* study yielding evidence of maturational lineages. J. Anat. 220: 186-199.

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 or our catalog for detailed protocols and support products.