

# secretin receptor (H-18): sc-26632

## 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., et al. 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. Harmor, A.J. 2001. Family B G protein-coupled receptors. *Genome Biol.* 2: REVIEWS 3013.
7. Chan, K.Y., et al. 2001. Functional segregation of the highly conserved basic motifs within the third endloop of the human secretin receptor. *Endocrinology* 142: 3926-3934.

## CHROMOSOMAL LOCATION

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

## SOURCE

secretin receptor (H-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of secretin receptor 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.

## 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-26632 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

secretin receptor (H-18) 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).

secretin receptor (H-18) is also recommended for detection of precursor and mature secretin receptor in additional species, including equine, canine, bovine and porcine.

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.

## RESEARCH USE

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

## PROTOCOLS

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



Try **secretin receptor (E-9): sc-166112** or **secretin receptor (3H1): sc-293316**, our highly recommended monoclonal alternatives to secretin receptor (H-18).