

CCK-BR (S-20): sc-16176

BACKGROUND

Gastrin is responsible for the stimulation of various digestive functions. In response to gastrin, the stomach mucosa produces and secretes hydrochloric acid, and the pancreas secretes digestive enzymes. Gastrin also stimulates smooth muscle contraction and increases blood circulation and water secretion in the stomach and intestine. In the brain, cholecystokinin (CCK) is a neurotransmitter that is involved in satiety, stress and anxiety. CCK is expressed in the gastrointestinal (GI) system as well as the central nervous system (CNS), which provides further evidence that CCK modulates food consumption. Both CCK and gastrin mediate their effects through two G protein-coupled receptors, CCK-AR and CCK-BR. CCK preferentially binds CCK-AR with high affinity, whereas CCK-BR binds to gastrin and CCK with nearly equal affinities. The cholecystokinin receptors and their ligands are potential therapeutic targets for GI or CNS diseases.

REFERENCES

1. Koh, T.J. and Wang, T.C. 1995. Molecular cloning and sequencing of the murine gastrin gene. *Biochem. Biophys. Res. Commun.* 216: 34-41.
2. Yassin, R.R. 1999. Signaling pathways mediating gastrin's growth-promoting effects. *Peptides* 20: 885-898.
3. Crespi, F., et al. 2000. Involvement of cholecystokinin within craving for cocaine: role of cholecystokinin receptor ligands. *Expert Opin. Investig. Drugs* 9: 2249-2258.
4. de Tullio, P., et al. 2000. Therapeutic and chemical developments of cholecystokinin receptor ligands. *Expert Opin. Investig. Drugs* 9: 129-146.
5. Beglinger, C., et al. 2001. Loxiglumide, a CCK-A receptor antagonist, stimulates calorie intake and hunger feelings in humans. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 280: 1149-1154.
6. Todisco, A., et al. 2001. Molecular mechanisms for the antiapoptotic action of gastrin. *Am. J. Physiol. Gastrointest. Liver Physiol.* 280: 298-307.

CHROMOSOMAL LOCATION

Genetic locus: CCKBR (human) mapping to 11p15.4; Cckbr (mouse) mapping to 7 E3.

SOURCE

CCK-BR (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCK-BR 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-16176 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

CCK-BR (S-20) is recommended for detection of CCK-BR 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CCK-BR (S-20) is also recommended for detection of CCK-BR in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CCK-BR siRNA (h): sc-43671, CCK-BR siRNA (m): sc-44569, CCK-BR shRNA Plasmid (h): sc-43671-SH, CCK-BR shRNA Plasmid (m): sc-44569-SH, CCK-BR shRNA (h) Lentiviral Particles: sc-43671-V and CCK-BR shRNA (m) Lentiviral Particles: sc-44569-V.

Molecular Weight of CCK-BR: 80 kDa.

Positive Controls: mouse brain extract: sc-2253, SK-N-MC cell lysate: sc-2237 or IMR-32 cell lysate: sc-2409.

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. Ito, M., et al. 2008. Role of the gastrin-gastrin receptor system in the expansive growth of human gastric neoplasms. *Digestion* 78: 163-170.

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.



Try **CCK-BR (E-3): sc-166690** or **CCK-BR (4A5): sc-53522**, our highly recommended monoclonal alternatives to CCK-BR (S-20).