SANTA CRUZ BIOTECHNOLOGY, INC.

CCK-BR (E-3): sc-166690

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Cholecystokinin (CCK) is a neurotransmitter in the brain 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.

CHROMOSOMAL LOCATION

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

SOURCE

CCK-BR (E-3) is a mouse monoclonal antibody raised against amino acids 1-85 mapping at the N-terminus of CCK-BR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCK-BR (E-3) is available conjugated to agarose (sc-166690 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166690 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166690 PE), fluorescein (sc-166690 FITC), Alexa Fluor® 488 (sc-166690 AF488), Alexa Fluor® 546 (sc-166690 AF546), Alexa Fluor® 594 (sc-166690 AF594) or Alexa Fluor® 647 (sc-166690 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166690 AF680) or Alexa Fluor® 790 (sc-166690 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CCK-BR (E-3) is recommended for detection of CCK-BR of mouse, rat and 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), 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).

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.

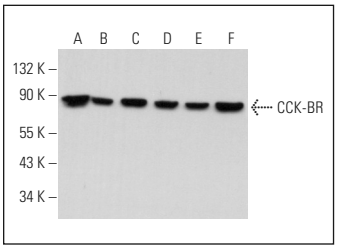
Molecular Weight of CCK-BR: 80 kDa.

Positive Controls: A549 cell lysate: sc-2413, SK-N-MC cell lysate: sc-2237 or NCI-H1299 whole cell lysate: sc-364234.

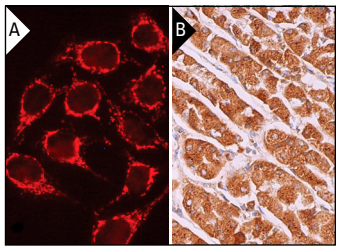
STORAGE

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

DATA



CCK-BR (E-3): sc-166690. Western blot analysis of CCK-BR expression in SK-N-MC (**A**), A-431 (**B**), NCI-H1299 (**C**), A549 (**D**), Jurkat (**E**) and NIH/3T3 (**F**) whole cell lysates.



CCK-BR (E-3): sc-166690. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Goetze, J.P., et al. 2013. Characterization of gastrins and their receptor in solid human gastric adenocarcinomas. Scand. J. Gastroenterol. 48: 688-695.
2. Yoshida, R., et al. 2017. The role of cholecystokinin in peripheral taste signaling in mice. Front. Physiol. 8: 866.
3. Plaza, A., et al. 2018. Expression analysis of a cholecystokinin system in human and rat white adipose tissue. Life Sci. 206: 98-105.
4. Verona, M., et al. 2021. Preliminary study of a 1,5-Benzodiazepine-derivative labelled with indium-111 for CCK-2 receptor targeting. Molecules 26: 918.
5. Bunch, H., et al. 2021. BRCA1-BARD1 regulates transcription through modulating topoisomerase IIβ. Open Biol. 11: 210221.
6. Guo, N., et al. 2021. Inhibition of Geranylgeranylacetone on cholecystokinin-B receptor, BDNF and dopamine D1 receptor induced by morphine. Biochem. Biophys. Res. Commun. 588: 23-28.

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.