

CCK (C-20): sc-21617

BACKGROUND

CCK (cholecystokinin) is a 115 amino acid secreted protein belonging to the gastrin/cholecystokinin family. CCK has been shown to stimulate the growth of pancreatic cancer. As a peptide hormone, CCK induces gallbladder contraction and the release of pancreatic enzymes in the gut. Binding of CCK to CCK-A receptors stimulates amylase release from the pancreas, while binding to CCK-B receptors stimulates gastric acid secretion. The function of CCK in the brain is not clear. The CCK precursor is cleaved by proteases to produce a number of active cholecystokinins including CCK58, CCK58 desnonopeptide, CCK39, CCK33, CCK25, CCK18, CCK12, CCK8, CCK7 and CCK5. The gene encoding CCK maps to human chromosome 3p22.1 and mouse chromosome 9 F4.

REFERENCES

1. Takahashi, Y., et al. 1985. Molecular cloning of the human cholecystokinin gene by use of a synthetic probe containing deoxyinosine. *Proc. Natl. Acad. Sci. USA* 82: 1931-1935.
2. Gigoux, V., et al. 1999. Arginine 197 of the cholecystokinin-A receptor binding site interacts with the sulfate of the peptide agonist cholecystokinin. *Protein Sci.* 8: 2347-2354.
3. Vishnuvardhan, D. and Beinfeld, M.C. 2000. Role of tyrosine sulfation and serine phosphorylation in the processing of procholecystokinin to amidated cholecystokinin and its secretion in transfected AtT-20 cells. *Biochemistry* 39: 13825-13830.
4. Comings, D.E., et al. 2001. Cholecystokinin (CCK) gene as a possible risk factor for smoking: a replication in two independent samples. *Mol. Genet. Metab.* 73: 349-353.
5. Mascagni, F. and McDonald, A.J. 2003. Immunohistochemical characterization of cholecystokinin containing neurons in the rat basolateral amygdala. *Brain Res.* 976: 171-184.
6. Wang, J., et al. 2003. Cholecystokinin, cholecystokinin-A receptor and cholecystokinin-B receptor gene polymorphisms in Parkinson's disease. *Pharmacogenetics* 13: 365-369.
7. Jang, J.Y., et al. 2005. Presence of CCK-A, B receptors and effect of gastrin and cholecystokinin on growth of pancreatobiliary cancer cell lines. *World J. Gastroenterol.* 11: 803-809.

CHROMOSOMAL LOCATION

Genetic locus: CCK (human) mapping to 3p22.1; Cck (mouse) mapping to 9 F4.

SOURCE

CCK (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CCK 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-21617 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CCK (C-20) is recommended for detection of CCK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

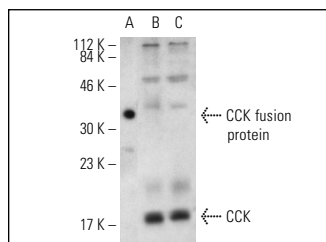
CCK (C-20) is also recommended for detection of CCK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CCK siRNA (h): sc-39496, CCK siRNA (m): sc-39497, CCK shRNA Plasmid (h): sc-39496-SH, CCK shRNA Plasmid (m): sc-39497-SH, CCK shRNA (h) Lentiviral Particles: sc-39496-V and CCK shRNA (m) Lentiviral Particles: sc-39497-V.

Molecular Weight of CCK: 4-12 kDa.

Positive Controls: mouse brain extract: sc-2253 or mouse hypothalamus tissue extract: 364242.

DATA



CCK (C-20): sc-21617. Western blot analysis of human recombinant CCK fusion protein (A) and CCK expression in mouse brain (B) and mouse hypothalamus (C) tissue extracts.

SELECT PRODUCT CITATIONS

1. Gagnon, J., et al. 2009. Expression of PCSK1 (PC1/3), PCSK2 (PC2) and PCSK3 (furin) in mouse small intestine. *Regul. Pept.* 152: 54-60.
2. Lee, J.H., et al. 2009. Ferritin binds and activates p53 under oxidative stress. *Biochem. Biophys. Res. Commun.* 389: 399-404.
3. Hartlage-Rübsamen, M., et al. 2009. Developmental expression and sub-cellular localization of glutamyl cyclase in mouse brain. *Int. J. Dev. Neurosci.* 27: 825-35.

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.