

## CCK-4 (K-14): sc-46306

### BACKGROUND

Cholecystokinin (CCK) is a brain/gut peptide and, in the gut, it induces the release of pancreatic enzymes and the contraction of the gallbladder. The CCK precursor is cleaved to produce active peptides, including CCK58. CCK-4 is Type I membrane protein belonging to the Tyr family of protein kinases, Insulin receptor subfamily. CCK-4 lack the typical tyrosine kinase catalytic activity and may be involved in cell adhesion. CCK-4 is a potential tumor progression marker and putatively involved in colon carcinoma pathophysiology. It is mainly expressed in pancreas, liver, lung, placenta, kidney and melanocytes. It is not expressed in colon but may be detected in erythroleukemia cells.

### REFERENCES

1. Lee, S.T., et al. 1993. A survey of protein tyrosine kinase mRNAs expressed in normal human melanocytes. *Oncogene* 8: 3403-3410.
2. Mossie, K., et al. 1995. Colon carcinoma kinase-4 defines a new subclass of the receptor tyrosine kinase family. *Oncogene* 11: 2179-2184.
3. Park, S.K., et al. 1996. Characterization of the human full-length PTK7 cDNA encoding a receptor protein tyrosine kinase-like molecule closely related to chick KLG. *J. Biochem.* 119: 235-239.
4. Banga, S.S., et al. 1997. Assignment of PTK7 encoding a receptor protein tyrosine kinase-like molecule to human chromosome 6p21.1→ p12.2 by fluorescence *in situ* hybridization. *Cytogenet. Cell Genet.* 76: 43-44.
5. Easty, D.J., et al. 1997. Loss of expression of receptor tyrosine kinase family genes PTK7 and SEK in metastatic melanoma. *Int. J. Cancer.* 71: 1061-1065.
6. Jung, J.W., et al. 2002. Organization of the human PTK7 gene encoding a receptor protein tyrosine kinase-like molecule and alternative splicing of its mRNA. *Biochim. Biophys. Acta* 1579: 153-163.
7. Daigo, Y., et al. 2004. Isolation of novel mouse genes that were differentially expressed in W/W(V) mouse fundus. *J. Gastroenterol.* 39: 238-241.
8. Kobus, F.J., et al. 2005. The GxxxG-containing transmembrane domain of the CCK4 oncogene does not encode preferential self-interactions. *Biochemistry* 44: 1464-1470.

### CHROMOSOMAL LOCATION

Genetic locus: PTK7 (human) mapping to 6p21.1; Ptk7 (mouse) mapping to 17 C.

### SOURCE

CCK-4 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCK-4 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-46306 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

CCK-4 (K-14) is recommended for detection of mature CCK-4 and CCK-4 precursor 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-4 (K-14) is also recommended for detection of mature CCK-4 and CCK-4 precursor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CCK-4 siRNA (h): sc-105188, CCK-4 siRNA (m): sc-142165, CCK-4 shRNA Plasmid (h): sc-105188-SH, CCK-4 shRNA Plasmid (m): sc-142165-SH, CCK-4 shRNA (h) Lentiviral Particles: sc-105188-V and CCK-4 shRNA (m) Lentiviral Particles: sc-142165-V.

Molecular Weight of CCK-4: 118 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

### 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.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **CCK-4 (WW02): sc-100304**, our highly recommended monoclonal alternative to CCK-4 (K-14).