

# Reg IV (K-16): sc-48077

## BACKGROUND

Reg IV is part of the regenerating gene family, within the C-type lectin superfamily. This family is involved in liver, pancreatic, gastric and intestinal cell proliferation and differentiation. Reg IV is a 158 amino acid secretory protein implicated in cell regeneration and/or survival with a definite growth stimulating effect on pancreatic  $\beta$  cells. It is highly expressed in colorectal, gastric, prostate and other types of cancer. Reg IV-positive tumor cells display different phenotypes including mucus-secreting, enterocyte-like and undifferentiated.

## REFERENCES

1. Violette, S., Festor, E., Pandrea-Vasile, I., Mitchell, V., Adida, C., Dussaulx, E., Lacorte, J.M., Chambaz, J., Lacasa, M. and Lesuffleur, T. 2002. Reg IV, a new member of the regenerating gene family, is overexpressed in colorectal carcinomas. *Int. J. Cancer* 103: 185-193.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609846. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Zhang, Y.W., Ding, L.S. and Lai, M.D. 2003. Reg gene family and human diseases. *World J. Gastroenterol.* 9: 2635-2641.
4. Yonemura, Y., Sakurai, S., Yamamoto, H., Endou, Y., Kawamura, T., Bandou, E., Elnemr, A., Sugiyama, K., Sasaki, T., Akiyama, T., Takasawa, S. and Okamoto, H. 2003. REG gene expression is associated with the infiltrating growth of gastric carcinoma. *Cancer* 98: 1394-1400.
5. Zhang, Y., Lai, M., Lv, B., Gu, X., Wang, H., Zhu, Y., Zhu, Y., Shao, L. and Wang, G. 2003. Overexpression of Reg IV in colorectal adenoma. *Cancer Lett.* 200: 69-76.
6. Miyagawa, K., Sakakura, C., Kin, S., Nakase, Y., Fukuda, K., Hagiwara, A., Okazaki, Y., Hayashizaki, Y. and Yamagishi, H. 2004. Over expression of Reg IV in peritoneal dissemination of gastric cancer. *Gan To Kagaku Ryoho* 31: 1909-1911.
7. Nata, K., Liu, Y., Xu, L., Ikeda, T., Akiyama, T., Noguchi, N., Kawaguchi, S., Yamauchi, A., Takahashi, I., Shervani, N.J., Onogawa, T., Takasawa, S. and Okamoto, H. 2004. Molecular cloning, expression and chromosomal localization of a novel human REG family gene, REG III. *Gene* 340: 161-170.
8. Gu, Z., Rubin, M.A., Yang, Y., Deprimo, S.E., Zhao, H., Horvath, S., Brooks, J.D., Loda, M. and Reiter, R.E. 2005. Reg IV: a promising marker of hormone refractory metastatic prostate cancer. *Clin. Cancer Res.* 11: 2237-2243.

## CHROMOSOMAL LOCATION

Genetic locus: REG4 (human) mapping to 1p12; Reg4 (mouse) mapping to 3 F2.2.

## SOURCE

Reg IV (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Reg IV of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, Ready P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Reg IV (K-16) is recommended for detection of Reg IV isoforms 1, 2 and 3 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).

Reg IV (K-16) is also recommended for detection of Reg IV isoforms 1, 2 and 3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Reg IV siRNA (h): sc-61448, Reg IV siRNA (m): sc-61449, Reg IV shRNA Plasmid (h): sc-61448-SH, Reg IV shRNA Plasmid (m): sc-61449-SH, Reg IV shRNA (h) Lentiviral Particles: sc-61448-V and Reg IV shRNA (m) Lentiviral Particles: sc-61449-V.

Molecular Weight of Reg IV: 20 kDa.

Positive Controls: mouse liver extract: sc-2256.

## 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.

## PROTOCOLS

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



Try **Reg IV (Lc07): sc-80320**, our highly recommended monoclonal alternative to Reg IV (K-16).