

Reg III α (3x1R-7): sc-80319

BACKGROUND

The regeneration (Reg) family consists of secretory proteins involved in liver, pancreatic, gastric and intestinal cell proliferation or differentiation. Members of the Reg family are divided into four subclasses, designated types I, II, III and IV. They have been implicated in the regulation of cell growth, tumorigenesis and the progression of cancer. Specifically, increased expression of Reg III α results in pancreatic inflammation and liver carcinogenesis. Reg III α , also designated pancreatitis-associated protein, localizes to the apical region of pancreatic acinar cells and is similar to the C-type lectin superfamily. The Reg III α protein is mainly expressed in the intestine, with lower expression detected in healthy pancreas. It is also detected in pancreatic juice as a result of pancreatic inflammation.

REFERENCES

- 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, Reg3. *Gene* 340: 161-170.
- Lieu, H.T., Batteux, F., Simon, M.T., Cortes, A., Nicco, C., Zavala, F., Pauloin, A., Tralhao, J.G., Soubrane, O., Weill, B., Brechot, C. and Christa, L. 2005. HIP/PAP accelerates liver regeneration and protects against acetaminophen injury in mice. *Hepatology* 42: 618-626.
- Yu, T.T., McIntyre, J.C., Bose, S.C., Hardin, D., Owen, M.C. and McClintock, T.S. 2005. Differentially expressed transcripts from phenotypically identified olfactory sensory neurons. *J. Comp. Neurol.* 483: 251-262.
- Namikawa, K., Fukushima, M., Murakami, K., Suzuki, A., Takasawa, S., Okamoto, H. and Kiyama, H. 2005. Expression of Reg/PAP family members during motor nerve regeneration in rat. *Biochem. Biophys. Res. Commun.* 332: 126-134.
- Chen, C.Y., Lin, X.Z., Wu, H.C. and Shiesh, S.C. 2005. The value of biliary Amylase and hepatocarcinoma-intestine-protein I (HIP/PAP-I) in diagnosing biliary malignancies. *Clin. Biochem.* 38: 520-525.
- Jamal, A.M., Lipsett, M., Sladek, R., Laganière, S., Hanley, S. and Rosenberg, L. 2005. Morphogenetic plasticity of adult human pancreatic islets of Langerhans. *Cell Death Differ.* 12: 702-712.
- Yuan, R.H., Jeng, Y.M., Chen, H.L., Hsieh, F.J., Yang, C.Y., Lee, P.H. and Hsu, H.C. 2005. Opposite roles of human pancreatitis-associated protein and Reg 1 α expression in hepatocellular carcinoma: association of pancreatitis-associated protein expression with low-stage hepatocellular carcinoma, β -catenin mutation, and favorable prognosis. *Clin. Cancer Res.* 11: 2568-2575.
- Nordback, I., Pelli, H., Lappalainen-Lehto, R. and Sand, J. 2005. Is it long-term continuous drinking or the post-drinking withdrawal period that triggers the first acute alcoholic pancreatitis? *Scand. J. Gastroenterol.* 40: 1235-1239.
- Cavard, C., Terris, B., Grimber, G., Christa, L., Audard, V., Radenen-Bussiere, B., Simon, M.T., Renard, C.A., Buendia, M.A. and Perret, C. 2006. Overexpression of regenerating islet-derived 1 α and 3 α genes in human primary liver tumors with β -catenin mutations. *Oncogene* 25: 599-608.

CHROMOSOMAL LOCATION

Genetic locus: Reg3a (mouse) mapping to 6 C3.

SOURCE

Reg III α (3x1R-7) is a mouse monoclonal antibody raised against full length recombinant Reg III α of rat origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and protein stabilizer.

APPLICATIONS

Reg III α (3x1R-7) is recommended for detection of Reg III α of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Reg I of mouse origin or Reg II of rat origin.

Suitable for use as control antibody for REG III α siRNA (m): sc-61451, REG III α shRNA Plasmid (m): sc-61451-SH and REG III α shRNA (m) Lentiviral Particles: sc-61451-V.

Molecular Weight of Reg III α : 19 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

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 for detailed protocols and support products.