

RESP18 (Q-17): sc-324264

BACKGROUND

RESP18 (regulated endocrine-specific protein 18), is a 173 amino acid secreted protein that belongs to the RESP18 family. Localizing to Golgi apparatus, endoplasmic reticulum and the lumen of dense core vesicles, RESP18 is found in α , β and δ cells of pancreatic islets. RESP18 expression is limited to brain, pituitary, peripheral endocrine tissues and sperm, suggesting that its function is specific to neurons, endocrine cells and sperm. RESP18 is expressed in several endocrine cell lines, including AtT-20, GH3, PC12 and RIN cells, but not in fibroblast lines. RESP18 is a major glucocorticoid responsive protein in the secretory pathway of corticotropes. The RESP18 gene contains 9 exons and exists as three alternatively spliced isoforms. The RESP18 gene is conserved in chimpanzee, cow, mouse and rat and maps to human chromosome 2q35.

REFERENCES

- Bloomquist, B.T., Darlington, D.N., Mueller, G.P., Mains, R.E. and Eipper, B.A. 1994. Regulated endocrine-specific protein-18: a short-lived novel glucocorticoid-regulated endocrine protein. *Endocrinology* 135: 2714-2722.
- Bloomquist, B.T., Darlington, D.N., Mains, R.E. and Eipper, B.A. 1994. RESP18, a novel endocrine secretory protein transcript, and four other transcripts are regulated in parallel with pro-opiomelanocortin in melanotropes. *J. Biol. Chem.* 269: 9113-9122.
- Schiller, M.R. and Darlington, D.N. 1996. Stage-specific expression of RESP18 in the testes. *J. Histochem. Cytochem.* 44: 1489-1496.
- Darlington, D.N., Schiller, M.R., Mains, R.E. and Eipper, B.A. 1997. Expression of RESP18 in peptidergic and catecholaminergic neurons. *J. Histochem. Cytochem.* 45: 1265-1277.
- Itoh, M., Tsukada, S., Orita, T., Nishiu, J., Tomoike, H., Nakamura, Y. and Tanaka, T. 1998. Identification by differential display of eight known genes induced during *in vivo* intimal hyperplasia. *J. Hum. Genet.* 43: 9-13.
- Cai, T. 2005. Are IA-2 and RESP18 involved in trait of blood pressure? *Hypertension* 46: e18.
- Zhang, G., Hirai, H., Cai, T., Miura, J., Yu, P., Huang, H., Schiller, M.R., Swaim, W.D., Leapman, R.D. and Notkins, A.L. 2007. RESP18, a homolog of the luminal domain IA-2, is found in dense core vesicles in pancreatic islet cells and is induced by high glucose. *J. Endocrinol.* 195: 313-321.
- Online Mendelian Inheritance in Man, OMIM™. 2009 Johns Hopkins University, Baltimore, MD. MIM Number: 612721. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RESP18 (human) mapping to 2q35.

SOURCE

RESP18 (Q-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RESP18 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-324264 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RESP18 (Q-17) is recommended for detection of RESP18 of 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).

Molecular Weight of RESP18 isoforms 1/2/3: 19/25/19 kDa.

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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.