SANTA CRUZ BIOTECHNOLOGY, INC.

RFPL1/2/3 (C-15): sc-86817

BACKGROUND

RFPL1, RFPL2 and RFPL3 (ret finger protein-like 1, 2 and 3, respectively), exist as a cluster of genes mapping to human chromosome 22q12.3, sharing 95%-96% identity. RFPL1, 2 and 3, are thought to contribute to neocortex organization and size in primates, and show high expression in fetal neocortex as well as embryonic stem-cell neurogenesis. Each of the three RFPL genes encodes two exons giving rise to a putative RING-like motifs and B30-2 domains. RFPL1, also known as RNF78 or MGC132428, is a 317 amino acid protein known to have high expression in prostate with lower expression in adult brain, fetal liver and fetal kidney. RFPL2, or RNF79, is 378 amino acids long and is also highly expressed in prostate with lower expression in fetal kidney and fetal liver. As a result of alternative splicing, two isoforms of RFPL2 exist. The RFPL3 protein is 371 amino acids long and may have been emerged due to intrachromosomal duplication.

REFERENCES

1. Seroussi, E., Kedra, D., Pan, H.Q., Peyrard, M., Schwartz, C., Scambler, P., Donnai, D., Roe, B.A. and Dumanski, J.P. 1999. Duplications on human chromosome 22 reveal a novel Ret Finger Protein-like gene family with sense and endogenous antisense transcripts. Genome Res. 9: 803-814.
2. Bonnefont, J., Nikolaev, S.I., Perrier, A.L., Guo, S., Cartier, L., Sorce, S., Laforge, T., Aubry, L., Khaitovich, P., Peschanski, M., Antonarakis, S.E. and Krause, K.H. 2008. Evolutionary forces shape the human RFPL1,2,3 genes toward a role in neocortex development. Am. J. Hum. Genet. 83: 208-218.
3. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 605970. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: RFPL1, RFPL2, RFPL3 (human) mapping to 22q12.3.

SOURCE

RFPL1/2/3 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RFPL3 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-86817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86817 X, 100 µg/0.1 ml.

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.

APPLICATIONS

RFPL1/2/3 (C-15) is recommended for detection of RFPL1, RFPL2 and RFPL3 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).

RFPL1/2/3 (C-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RFPL1/2/3: 35 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.

PROTOCOLS

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