SANTA CRUZ BIOTECHNOLOGY, INC.

RPUSD3 (G-16): sc-103171

BACKGROUND

RPUSD3 (RNA pseudouridylate synthase domain containing 3), also known as FLJ34707, FLJ37268 or MGC29784, is a 343 amino acid protein member of the pseudouridine synthase rluA family. Three RPUSD3 isoforms exist due to alternative splicing, and the gene encoding RPUSD3 maps to chromosome three which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. Dey, S. 1996. Aryl monooxygenase: a detoxifying enzyme from *Candida pulcherrima* MCMY2. Indian J. Biochem. Biophys. 33: 523-526.
2. Ofengand, J. 2002. Ribosomal RNA pseudouridines and pseudouridine synthases. FEBS Lett. 514: 17-25.
3. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
4. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. Genomics 83: 193-202.
5. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. Genomics 85: 36-47.
6. Hoang, C., et al. 2006. Crystal structure of pseudouridine synthase RluA: indirect sequence readout through protein-induced RNA structure. Mol. Cell 24: 535-545.

CHROMOSOMAL LOCATION

Genetic locus: RPUSD3 (human) mapping to 3p25.3.

SOURCE

RPUSD3 (G-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of RPUSD3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103171 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

RPUSD3 (G-16) is recommended for detection of RPUSD3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

RPUSD3 (G-16) is also recommended for detection of RPUSD3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for RPUSD3 siRNA (h): sc-78352, RPUSD3 shRNA Plasmid (h): sc-78352-SH and RPUSD3 shRNA (h) Lentiviral Particles: sc-78352-V.

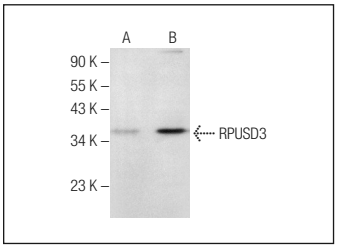
Molecular Weight of RPUSD3: 38 kDa.

Positive Controls: RPUSD3 (h): 293T Lysate: sc-370902.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RPUSD3 (G-16): sc-103171. Western blot analysis of RPUSD3 expression in non-transfected: sc-117752 (**A**) and human RPUSD3 transfected: sc-370902 (**B**) 293T whole cell lysates.

PROTOCOLS

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