SANTA CRUZ BIOTECHNOLOGY, INC.

9030617O03Rik (D-19): sc-240038

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

9030617O03Rik, also known as UPF0317 protein C14orf159 homolog, is a 617 amino acid mitochondrial protein that belongs to the UPF0317 family. Existing as two alternatively spliced isoforms, 9030617O03Rik is encoded by a gene that maps to murine chromosome 12 and is the homolog of the human protein C14orf159. C14orf159 (chromosome 14 open reading frame 159) is a 616 amino acid mitochondrial protein that exists as 6 alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 14q32.12. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder α1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein BCL3 in the (14;19) translocations found in a variety of B cell malignancies.

REFERENCES

1. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
2. Godbolt, A.K., et al. 2004. A presenilin 1 R278I mutation presenting with language impairment. Neurology 63: 1702-1704.
3. Stolk, J., et al. 2006. α1-antitrypsin deficiency: current perspective on research, diagnosis, and management. Int. J. Chron. Obstruct. Pulmon. Dis. 1: 151-160.
4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. Mol. Neurodegener. 1: 4.
5. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
6. Cruz, P.E., et al. 2007. The promise of gene therapy for the treatment of α-1 antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.

CHROMOSOMAL LOCATION

Genetic locus: 9030617O03Rik (mouse) mapping to 12 E.

SOURCE

9030617O03Rik (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 9030617O03Rik of mouse 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-240038 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.

APPLICATIONS

9030617O03Rik (D-19) is recommended for detection of 9030617O03Rik of mouse origin and RGD1311756 of rat 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).

Suitable for use as control antibody for 9030617O03Rik siRNA (m): sc-140507, 9030617O03Rik shRNA Plasmid (m): sc-140507-SH and 9030617O03Rik shRNA (m) Lentiviral Particles: sc-140507-V.

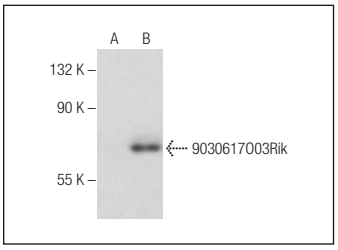
Molecular Weight of 9030617O03Rik isoforms: 66/61 kDa.

Positive Controls: 9030617O03Rik (m): 293T Lysate: sc-118074.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



9030617O03Rik (D-19): sc-240038. Western blot analysis of 9030617O03Rik expression in non-transfected: sc-117752 (**A**) and mouse 9030617O03Rik transfected: sc-118074 (**B**) 293T whole cell lysates.

RESEARCH USE

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