RES4-22 (Q-17): sc-248401



The Power to Question

BACKGROUND

RES4-22, also known as FAM193A (family with sequence similarity 193, member A), is a 1,265 amino acid protein that belongs to the FAM193 family. Autoantibodies to RES4-22 have been detected in patients with neurological disorders, especially cerebral ischaemia. The RES4-22 gene is conserved in chimpanzee, canine, mouse, rat, chicken and zebrafish. Existing as four alternatively spliced isoforms, RES4-22 is located close to the Huntington's disease gene, which is found to encode an expanded glutamine tract on human chromosome 4p16.3. FGFR-3 is also encoded by a gene located on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

- Bu an, M., Zimmer, M., Whaley, W.L., Poustka, A., Youngman, S., Allitto, B.A., Ormondroyd, E., Smith, B., Pohl, T.M. and MacDonald, M. 1990. Physical maps of 4p16.3, the area expected to contain the Huntington disease mutation. Genomics 6: 1-15.
- Hadano, S., Ishida, Y., Tomiyasu, H., Yamamoto, K., Bates, G.P. and Ikeda, J.E. 1996. Transcript map of the human chromosome 4p16.3 consisting of 627 cDNA clones derived from 1 Mb of the Huntington's disease locus. DNA Res. 3: 239-255.
- Pribill, I., Barnes, G.T., Chen, J., Church, D., Buckler, A., Baxendale, S., Bates, G.P., Lehrach, H., Gusella, M.J., Duyao, M.P., Ambrose, C.M., Gusella, J.F. and MacDonald, M.E. 1997. Exon trapping and sequencebased methods of gene finding in transcript mapping of human 4p16.3. Somat. Cell Mol. Genet. 23: 413-427.
- Hadano, S., Ishida, Y. and Ikeda, J.E. 1998. The primary structure and genomic organization of five novel transcripts located close to the Huntington's disease gene on human chromosome 4p16.3. DNA Res. 5: 177-186.
- Amin, M., Uhlig, H.H., Kamprad, M., Karbe, J., Osman, A.A., Grahmann, F., Hummelsheim, H. and Mothes, T. 2001. Neurological disease-associated autoantibodies against an unknown protein encoded by a RES4-22 homologous gene. Scand. J. Immunol. 53: 204-208.
- Versteegh, F.G., Buma, S.A., Costin, G., de Jong, W.C. and Hennekam, R.C. 2007. Growth hormone analysis and treatment in Ellis-van Creveld syndrome. Am. J. Med. Genet. A 143A: 2113-2121.
- de Frutos, C.A., Vega, S., Manzanares, M., Flores, J.M., Huertas, H., Martínez-Frías, M.L. and Nieto, M.A. 2007. Snail1 is a transcriptional effector of FGFR3 signaling during chondrogenesis and achondroplasias. Dev. Cell 13: 872-883.

CHROMOSOMAL LOCATION

Genetic locus: FAM193A (human) mapping to 4p16.3; Fam193a (mouse) mapping to 5 B2.

SOURCE

RES4-22 (Q-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RES4-22 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-248401 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RES4-22 (Q-17) is recommended for detection of RES4-22 of human origin and FAM193A of mouse 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); non cross-reactive with FAM193B.

RES4-22 (Q-17) is also recommended for detection of RES4-22 in additional species, including equine, canine and avian.

Suitable for use as control antibody for RES4-22 siRNA (h): sc-89014, FAM193A siRNA (m): sc-141575, RES4-22 shRNA Plasmid (h): sc-89014-SH, FAM193A shRNA Plasmid (m): sc-141575-SH, RES4-22 shRNA (h) Lentiviral Particles: sc-89014-V and FAM193A shRNA (m) Lentiviral Particles: sc-141575-V.

Molecular Weight of RES4-22 isoforms 1/2/3/4: 140/136/86/123 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.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**