C9orf78 (E-20): sc-242298



The Power to Question

BACKGROUND

Chromosome 9 consists of about 145 million bases and 4% of the human genome and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, is associated with the chromosome 9 gene encoding endoglin protein, ENG. Familial dysautonomia is also associated with chromosome 9 though through the gene IKBKAP. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of BCR-ABL fusion protein often found in leukemias. The C9orf78 gene product has been provisionally designated C9orf78 pending further characterization.

REFERENCES

- Humphray, S.J., Oliver, K., Hunt, A.R., Plumb, R.W., Loveland, J.E., Howe, K.L., Andrews, T.D., Searle, S., Hunt, S.E., Scott, C.E., Jones, M.C., Bailey, J., Almeida, J.P., Babbage, S., Bagguley, C.L., Banerjee, R., et al. 2004. DNA sequence and analysis of human chromosome 9. Nature 429: 369-374.
- Zheng, X., Güller, S., Beissert, T., Puccetti, E. and Ruthardt, M. 2006. BCR and its mutants, the reciprocal t(9;22)-associated ABL/BCR fusion proteins, differentially regulate the cytoskeleton and cell motility. BMC Cancer 6: 262.
- 3. Coppo, P., Flamant, S., De Mas, V., Jarrier, P., Guillier, M., Bonnet, M.L., Lacout, C., Guilhot, F., Vainchenker, W. and Turhan, A.G. 2006. BCR-ABL activates STAT3 via JAK and MEK pathways in human cells. Br. J. Haematol. 134: 171-179.
- 4. Hims, M.M., Shetty, R.S., Pickel, J., Mull, J., Leyne, M., Liu, L., Gusella, J.F. and Slaugenhaupt, S.A. 2007. A humanized IKBKAP transgenic mouse models a tissue-specific human splicing defect. Genomics 90: 389-396.
- Burmeister, T., Schwartz, S., Taubald, A., Jost, E., Lipp, T., Schneller, F., Mey, U.J., Diedrich, H., Thomssen, H., Eucker, J., Rieder, H., Gökbuget, N., Thiel, E. and Hoelzer, D. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. Haematologica 92: 1699-1702.
- Fernandez-L, A., Fernandez-Lopez, A., Garrido-Martin, E.M., Sanz-Rodriguez, F., Pericacho, M., Rodriguez-Barbero, A., Eleno, N., Lopez-Novoa, J.M., Düwell, A., Vega, M.A., Bernabeu, C. and Botella, L.M. 2007. Gene expression fingerprinting for human hereditary hemorrhagic telangiectasia. Hum. Mol. Genet. 16: 1515-1533.
- Cottin, V., Dupuis-Girod, S., Lesca, G. and Cordier, J.F. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (renduosler disease). Respiration 74: 361-378.
- Gardiner, J., Barton, D., Marc, J. and Overall, R. 2007. Potential role of tubulin acetylation and microtubule-based protein trafficking in familial dysautonomia. Traffic 8: 1145-1149.
- Temtamy, S.A., Kamel, A.K., Ismail, S., Helmy, N.A., Aglan, M.S., El Gammal, M., El Ruby, M. and Mohamed, A.M. 2007. Phenotypic and cytogenetic spectrum of 9p trisomy. Genet. Couns. 18: 29-48.

CHROMOSOMAL LOCATION

Genetic locus: C9orf78 (human) mapping to 9q34.11; BC005624 (mouse) mapping to 2 B.

SOURCE

C9orf78 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C9orf78 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-242298 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C9orf78 (E-20) is recommended for detection of C9orf78 of mouse, rat and 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).

C9orf78 (E-20) is also recommended for detection of C9orf78 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for C9orf78 siRNA (h): sc-92889, C9orf78 siRNA (m): sc-141955, C9orf78 shRNA Plasmid (h): sc-92889-SH, C9orf78 shRNA Plasmid (m): sc-141955-SH, C9orf78 shRNA (h) Lentiviral Particles: sc-92889-V and C9orf78 shRNA (m) Lentiviral Particles: sc-141955-V.

Molecular Weight of C9orf78: 34 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) 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.