

EXDL3 (N-17): sc-130139

BACKGROUND

EXDL3, also known as EXD3 (exonuclease 3'-5' domain containing 3) or MUT-7, is an 876 amino acid protein that contains one 3'-5' exonuclease domain, suggesting a possible role in nucleotide cleavage. The gene encoding EXDL3 maps to chromosome 9 and is expressed as four isoforms that are produced via alternative splicing events. Chromosome 9 contains 145 million base pairs and comprises 4% of the human genome, encoding nearly 900 genes. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in translocations that lead to the aberrant production of a BCR-ABL fusion protein often found in leukemias.

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., Ainscough, R., Almeida, J.P., Ambrose, K.D., Ashwell, R.I., Babbage, A.K., Babbage, S., Bagguley, C.L., Bailey, J., Banerjee, R., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
- 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.
- 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* 7: 262.
- Burmeister, T., Schwartz, S., Taubald, A., Jost, E., Lipp, T., Schneller, F., Diedrich, H., Thomssen, H., Mey, U.J., Eucker, J., Rieder, H., Gökbüget, N., Hoelzer, D. and Thiel E. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
- Cottin, V., Dupuis-Girod, S., Lesca, G. and Cordier, J.F. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). *Respiration* 74: 361-378.
- Fernandez-L, 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.
- 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.
- 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.
- 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: EXD3 (human) mapping to 9q34.3.

SOURCE

EXDL3 (N-17) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of EXDL3 of human origin.

PRODUCT

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

APPLICATIONS

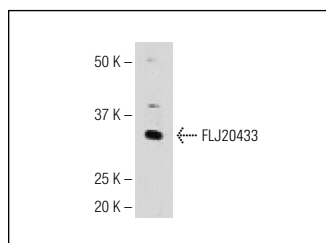
EXDL3 (N-17) is recommended for detection of EXDL3 isoform 5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EXDL3 siRNA (h): sc-92776, EXDL3 shRNA Plasmid (h): sc-92776-SH and EXDL3 shRNA (h) Lentiviral Particles: sc-92776-V.

Molecular Weight of EXDL3: 97 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

DATA



EXDL3 (N-17): sc-130139. Western blot analysis of EXDL3 expression in 293 whole cell lysate.

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.