SANTA CRUZ BIOTECHNOLOGY, INC.

DEPDC7 (T-15): sc-240310



The Power to Question

BACKGROUND

DEPDC7 (DEP domain-containing protein 7), also known as protein TR2/D15, is a 511 amino acid protein belonging to the DEPDC7 family. DEPDC7 contains one DEP domain and is highly expressed in liver, with lower levels in kidney. DEPDC7 exists as two isoforms produced by alternative splicing events. The gene encoding DEPDC7 maps to human chromosome 11p13 and mouse chromosome 2 E2. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are all associated with defects in chromosome 11.

REFERENCES

- Gawin, B., Niederführ, A., Schumacher, N., Hummerich, H., Little, P.F. and Gessler, M. 1999. A 7.5 Mb sequence-ready PAC contig and gene expression map of human chromosome 11p13-p14.1. Genome Res. 9: 1074-1086.
- Grossfeld, P.D., Mattina, T., Lai, Z., Favier, R., Jones, K.L., Cotter, F. and Jones, C. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129A: 51-61.
- Zehelein, J., Kathoefer, S., Khalil, M., Alter, M., Thomas, D., Brockmeier, K., Ulmer, H.E., Katus, H.A. and Koenen, M. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
- Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., FitzGerald, M.G., Jaffe, D.B., Nusbaum, C., Fujiyama, A., Hattori, M., Rogers, J., Lander, E.S. and Sakaki, Y. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
- Berger, A.C., Salazar, G., Styers, M.L., Newell-Litwa, K.A., Werner, E., Maue, R.A., Corbett, A.H. and Faundez, V. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. J. Cell Sci. 120: 3640-3652.
- O'Connor, M.J., Martin, N.M. and Smith, G.C. 2007. Targeted cancer therapies based on the inhibition of DNA strand break repair. Oncogene 26: 7816-7824.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612294. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/612294

CHROMOSOMAL LOCATION

Genetic locus: DEPDC7 (human) mapping to 11p13; Depdc7 (mouse) mapping to 2 E2.

SOURCE

DEPDC7 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DEPDC7 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-240310 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

SAPPLICATIONS

DEPDC7 (T-15) is recommended for detection of DEPDC7 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); non cross-reactive with other DEPDC family members.

DEPDC7 (T-15) is also recommended for detection of DEPDC7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DEPDC7 siRNA (h): sc-96354, DEPDC7 siRNA (m): sc-143010, DEPDC7 shRNA Plasmid (h): sc-96354-SH, DEPDC7 shRNA Plasmid (m): sc-143010-SH, DEPDC7 shRNA (h) Lentiviral Particles: sc-96354-V and DEPDC7 shRNA (m) Lentiviral Particles: sc-143010-V.

Molecular Weight of DEPDC7 isoforms: 58/61 kDa.

Positive Controls: Human fetal brain tissue extract.

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) Immunofluo-rescence: 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, **D0 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.