SANTA CRUZ BIOTECHNOLOGY, INC.

DNALI1 (h): 293T Lysate: sc-112545

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dyneins are multisubunit, high molecular weight ATPases that interact with microtubules to generate force by converting the chemical energy of ATP into the mechanical energy of movement. Cytoplasmic or axonemal dynein heavy, intermediate, light and light-intermediate chains are all components of minus end-directed motors; complexes that transport cellular cargo toward the central region of the cell. Axonemal dynein motors contain one to three non-identical heavy chains and cause a sliding of microtubules in the axonemes of cilia and flagella in a mechanism necessary for cilia to beat and propel the cell. DNALI1 (dynein, axonemal, light intermediate chain 1), also known as P28, is a 258 amino acid protein involved in flagellar motility. A member of the inner dynein arm light chain family, DNALI1 is widely expressed with highest expression found in testis, and is considered a potential candidate for immotile cilia syndrome (ICS).

REFERENCES

1. Vaughan, K.T., et al. 1996. Multiple mouse chromosomal loci for dynein-based motility. Genomics 36: 29-38.
2. Kastury, K., et al. 1997. Complemen-tary deoxyribonucleic acid cloning and characterization of a putative human axonemal dynein light chain gene. J. Clin. Endocrinol. Metab. 82: 3047-3053.
3. Yagi, T. 2000. ADP-dependent microtubule translocation by flagellar inner-arm dyneins. Cell Struct. Funct. 25: 263-267.
4. Epstein, E., et al. 2000. Dynein light chain binding to a 3'-untranslated sequence mediates parathyroid hormone mRNA association with microtubules. J. Clin. Invest. 105: 505-512.
5. Tang, Q., et al. 2002. A novel transforming growth factor-β receptor-interacting protein that is also a light chain of the motor protein dynein. Mol. Biol. Cell 13: 4484-4496.
6. Wu, H. and King, S.M. 2003. Backbone dynamics of dynein light chains. Cell Motil. Cytoskeleton 54: 267-273.

CHROMOSOMAL LOCATION

Genetic locus: DNALI1 (human) mapping to 1p34.3.

PRODUCT

DNALI1 (h): 293T Lysate represents a lysate of human DNALI1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

DNALI1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive DNALI1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.