

DYNLL1 (h): 293T Lysate: sc-111782

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; the complex transports cellular cargos towards the central region of the cell. The highly conserved DYNLL proteins were originally identified as light chains for microtubule-based motor protein dynein. In mammals there are two closely related isoforms expressed, DYNLL1 and DYNLL2 which share 93% sequence identity at the protein level. DYNLL1 (dynein light chain 1) also designated, DLC8 or PIN (protein inhibitor of neuronal nitric oxide synthase) has been identified as a protein that interacts with NOS1 resulting in NOS1 inhibition. Dimerization is required for NOS1 activity and DYNLL1 has been shown to destabilize the NOS1 dimer. Nitric oxide may be involved in several processes such as apoptosis, synaptogenesis and neuronal development; thus DYNLL1 is implicated in these processes as well. DYNLL1 is a ubiquitously expressed protein that exhibits high expression in testis and moderate expression in brain. DYNLL2 (dynein light chain 2) is subject to a unique alternative splicing event which is implicated in Myosin Va binding specificity.

REFERENCES

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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.

CHROMOSOMAL LOCATION

Genetic locus: DYNLL1 (human) mapping to 12q24.31.

PRODUCT

DYNLL1 (h): 293T Lysate represents a lysate of human DYNLL1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

DYNLL1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive DYNLL1 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.

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.