

DNCLI1 (N-16): sc-102492

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. There are two families of dynein motor complexes: axonemal dynein heavy, intermediate, light and light-intermediate chains are all components of minus end-directed motors, while cytoplasmic dyneins mainly function in intracellular transport. Belonging to the dynein light intermediate chain family, DNCLI1 (cytoplasmic dynein 1 light intermediate chain 1) is a 523 amino acid protein that consists of at least 3 heavy chains, 2 intermediate chains and 8 light chains. DNCLI1 may play a role in binding dynein heavy chain to chromosomes or membranous organelles and also may regulate dynein enzymatic activity by associating with heavy chains of the dynein head.

REFERENCES

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2. Tynan, S.H., et al. 2000. Light intermediate chain 1 defines a functional subfraction of cytoplasmic dynein which binds to pericentrin. *J. Biol. Chem.* 275: 32763-32768.
3. Bielli, A., et al. 2001. The small GTPase Rab4A interacts with the central region of cytoplasmic dynein light intermediate chain-1. *Biochem. Biophys. Res. Commun.* 281: 1141-1153.
4. Ligon, L.A., et al. 2004. A direct interaction between cytoplasmic dynein and kinesin I may coordinate motor activity. *J. Biol. Chem.* 279: 19201-19208.
5. Song, Y., et al. 2007. Potential role for phosphorylation in differential regulation of the assembly of dynein light chains. *J. Biol. Chem.* 282: 17272-17279.
6. Lo, K.W., et al. 2007. Interaction of the DYNLT (TCTEX1/RP3) light chains and the intermediate chains reveals novel intersubunit regulation during assembly of the dynein complex. *J. Biol. Chem.* 282: 36871-36878.

CHROMOSOMAL LOCATION

Genetic locus: DYNC1L1 (human) mapping to 3p22.3; Dync1l1 (mouse) mapping to 9 F3.

SOURCE

DNCLI1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of DNCLI1 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-102492 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

DNCLI1 (N-16) is recommended for detection of DNCLI1 of mouse, rat and 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)], 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 family member DNCLI2.

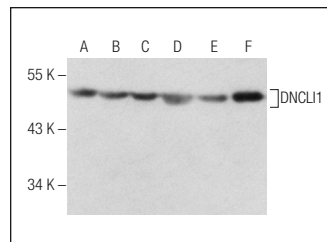
DNCLI1 (N-16) is also recommended for detection of DNCLI1 in additional species, including equine and canine.

Suitable for use as control antibody for DNCLI1 siRNA (h): sc-78144, DNCLI1 siRNA (m): sc-143120, DNCLI1 shRNA Plasmid (h): sc-78144-SH, DNCLI1 shRNA Plasmid (m): sc-143120-SH, DNCLI1 shRNA (h) Lentiviral Particles: sc-78144-V and DNCLI1 shRNA (m) Lentiviral Particles: sc-143120-V.

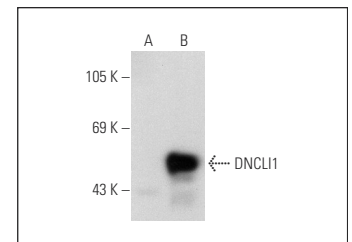
Molecular Weight of DNCLI1: 57 kDa.

Positive Controls: DNCLI1 (m): 293T Lysate: sc-119812, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

DATA



DNCLI1 (N-16): sc-102492. Western blot analysis of DNCLI1 expression in HeLa (A), K-562 (B), Ramos (C), Raji (D), MIA PaCa-2 (E) and DU 145 (F) whole cell lysates.



DNCLI1 (N-16): sc-102492. Western blot analysis of DNCLI1 expression in non-transfected: sc-117752 (A) and mouse DNCLI1 transfected: sc-119812 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **DNCLI1 (H-7): sc-514141**, our highly recommended monoclonal alternative to DNCLI1 (N-16).