

DYNC2H1 (C-20): sc-167700

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 Dynein is an approximately 12 subunit complex of 2 heavy chains, 2 intermediate chains to anchor Dynein to its cargo, 4 smaller intermediate chains and several light chains. Cytoplasmic Dynein performs functions necessary for cell survival such as organelle transport and centrosome assembly. DYNC2H1 (cytoplasmic Dynein 2 heavy chain 1), also known as Dynein heavy chain isotype 1B (DHC1B), ATD3 or DHC2, is a 4,307 amino acid member of the Dynein heavy chain protein family. DYNC2H1 may function as a motor for intraflagellar retrograde transport and in cilia biogenesis, as well as play a role in transport between the endoplasmic reticulum and Golgi. Defects in the gene that encodes DYNC2H1 are the cause of asphyxiating thoracic dystrophy type 3 (ATD3) and rib-polydactyly syndrome type 3 (SRPS3).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DYNC2H1 (human) mapping to 11q22.3; Dync2h1 (mouse) mapping to 9 A1.

STORAGE

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

SOURCE

DYNC2H1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of DYNC2H1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167700 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DYNC2H1 (C-20) is recommended for detection of DYNC2H1 of mouse 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).

Suitable for use as control antibody for DYNC2H1 siRNA (h): sc-96549, DYNC2H1 siRNA (m): sc-143206, DYNC2H1 shRNA Plasmid (h): sc-96549-SH, DYNC2H1 shRNA Plasmid (m): sc-143206-SH, DYNC2H1 shRNA (h) Lentiviral Particles: sc-96549-V and DYNC2H1 shRNA (m) Lentiviral Particles: sc-143206-V.

Molecular Weight of DYNC2H1 isoforms: 493/105 kDa.

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) Immunofluorescence: 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.

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.