

Dynactin 2 (H-300): sc-135135

BACKGROUND

Dynactin is a multisubunit complex that functions as a binding partner for the dynein microtubule motor. Dynactin-dynein binding may be required for most, if not all, cytoplasmic dynein-driven activities and is thought to contribute to the functional diversity of dynein. Dynactin 2, also known as DCTN2, Dynamin or DCTN50, is a peripheral membrane protein that is one of many subunits in the dynactin complex. Like other dynactin subunits, Dynactin 2 mediates dynein-organelle binding and helps to regulate chromosome alignment during prometaphase and spindle organization during mitosis. Overexpression of Dynactin 2 disrupts the dynactin-dynein complex, thus inhibiting retrograde axonal transport and causing motor neuron degeneration. Additionally, overexpression of Dynactin 2 may disrupt the cell cycle and lead to osteosarcoma, suggesting a possible role for Dynactin 2 in carcinogenesis.

CHROMOSOMAL LOCATION

Genetic locus: DCTN2 (human) mapping to 12q13.3; Dctn2 (mouse) mapping to 10 D3.

SOURCE

Dynactin 2 (H-300) is a rabbit polyclonal antibody raised against amino acids 102-401 mapping at the C-terminus of Dynactin 2 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.

STORAGE

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

APPLICATIONS

Dynactin 2 (H-300) is recommended for detection of Dynactin 2 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).

Dynactin 2 (H-300) is also recommended for detection of Dynactin 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dynactin 2 siRNA (h): sc-95708, Dynactin 2 siRNA (m): sc-143202, Dynactin 2 shRNA Plasmid (h): sc-95708-SH, Dynactin 2 shRNA Plasmid (m): sc-143202-SH, Dynactin 2 shRNA (h) Lentiviral Particles: sc-95708-V and Dynactin 2 shRNA (m) Lentiviral Particles: sc-143202-V.

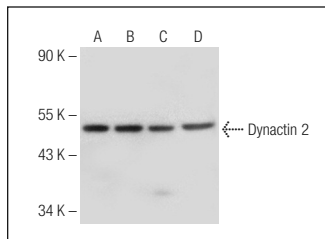
Molecular Weight of Dynactin 2: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Dynactin 2 (H-300): sc-135135. Western blot analysis of Dynactin 2 expression in MCF7 (A), HeLa (B) and K-562 (C) whole cell lysates and mouse brain tissue extract (D).

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.



Try **Dynactin 2 (G-4): sc-393389**, our highly recommended monoclonal alternative to Dynactin 2 (H-300).