

Dynactin 1 (C-20): sc-9801

BACKGROUND

Dynactin, a multisubunit complex, is a cytoplasmic Dynein-interacting protein that functions as the "receptor" 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. Enriched in neurons, Dynactin also binds to microtubules and has been shown to function in diverse processes, including organelle transport, formation of the mitotic spindle and cytokinesis. Dynactin subunits include p22, p50, p62, p150 (also designated Glued) and ARP-1. The p135 splice variant is neuron specific and, unlike p150, does not bind microtubules.

REFERENCES

1. Dillman, J.F., et al. 1996. Functional analysis of dynactin and cytoplasmic dynein in slow axonal transport. *J. Neurosci.* 16: 6742-6752.
2. Tokito, M.K., et al. 1997. Functionally distinct isoforms of dynactin are expressed in human neurons. *Mol. Biol. Cell* 7: 1167-1180.

CHROMOSOMAL LOCATION

Genetic locus: DCTN1 (human) mapping to 2p13.1; Dctn1 (mouse) mapping to 6 C3.

SOURCE

Dynactin 1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Dynactin 1 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-9801 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dynactin 1 (C-20) is recommended for detection of p150 and p135 splice variants of Dynactin 1 of mouse, rat 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), immunohistochemistry (including paraffin-embedded sections) (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 1 (C-20) is also recommended for detection of p150 and p135 splice variants of Dynactin 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dynactin 1 siRNA (h): sc-43317, Dynactin 1 siRNA (m): sc-43318, Dynactin 1 shRNA Plasmid (h): sc-43317-SH, Dynactin 1 shRNA Plasmid (m): sc-43318-SH, Dynactin 1 shRNA (h) Lentiviral Particles: sc-43317-V and Dynactin 1 shRNA (m) Lentiviral Particles: sc-43318-V.

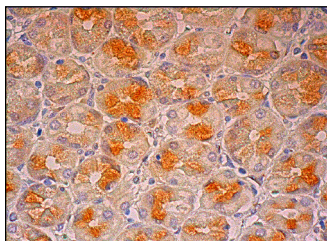
Molecular Weight of Dynactin 1 isoforms: 135/150 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or rat brain extract: sc-2392.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Dynactin 1 (C-20): sc-9801. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Bone, H.K., et al. 2009. Involvement of GSK-3 in regulation of murine embryonic stem cell self-renewal revealed by a series of bisindolyl-maleimides. *Chem. Biol.* 16: 15-27.
2. Kierszenbaum, A.L., et al. 2011. Cytoskeletal track selection during cargo transport in spermatids is relevant to male fertility. *Spermatogenesis* 1: 221-230.
3. Sanchez-Ripoll, Y., et al. 2013. Glycogen synthase kinase-3 inhibition enhances translation of pluripotency-associated transcription factors to contribute to maintenance of mouse embryonic stem cell self-renewal. *PLoS ONE* 8: e60148.

STORAGE

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

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **Dynactin 1 (A-2): sc-365274** or **Dynactin 1 (E-6): sc-271166**, our highly recommended monoclonal alternatives to Dynactin 1 (C-20).