

# Dynactin p62 (H-12): sc-55604

## BACKGROUND

Dynactin is a multisubunit complex and a required cofactor for most, if not all, of the cellular processes powered by the microtubule-based motor cytoplasmic Dynein. Dynactin contains a short Actin-related protein 1 (Arp1) filament with capZ at the barbed end and p62 at the pointed end. The p62 subunit is an integral component of 20 S Dynactin with a highly conserved cysteine-rich motif that interacts directly with Arp1. Dynactin p62 has a punctate cytoplasmic distribution as well as centrosomal distribution typical of Dynactin. In addition, Dynactin p62 is distributed in the nucleus at very high expression levels. Due to the structural composition of Dynactin, the p62 subunit is implicated in Arp1 pointed-end binding and in linking Dynein and Dynactin to the cortical cytoskeleton.

## REFERENCES

1. Schafer, D.A., Gill, S.R., Cooper, J.A., Heuser, J.E. and Schroer, T.A. 1994. Ultrastructural analysis of the Dynactin complex: an Actin-related protein is a component of a filament that resembles F-Actin. *J. Cell Biol.* 126: 403-412.
2. Bingham, J.B. and Schroer, T.A. 1999. Self-regulated polymerization of the Actin-related protein Arp1. *Curr. Biol.* 9: 223-226.

## CHROMOSOMAL LOCATION

Genetic locus: DCTN4 (human) mapping to 5q33.1; Dctn4 (mouse) mapping to 18 D3.

## SOURCE

Dynactin p62 (H-12) is a mouse monoclonal antibody raised against amino acids 161-460 of Dynactin p62 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Dynactin p62 (H-12) is recommended for detection of Dynactin p62 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for Dynactin p62 siRNA (h): sc-35232, Dynactin p62 siRNA (m): sc-35233, Dynactin p62 shRNA Plasmid (h): sc-35232-SH, Dynactin p62 shRNA Plasmid (m): sc-35233-SH, Dynactin p62 shRNA (h) Lentiviral Particles: sc-35232-V and Dynactin p62 shRNA (m) Lentiviral Particles: sc-35233-V.

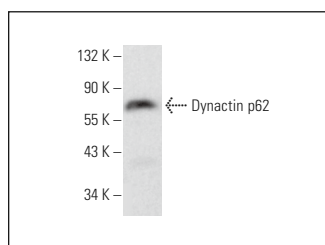
Molecular Weight of Dynactin p62: 62 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, A-10 cell lysate: sc-3806 or IMR-32 cell lysate: sc-2409.

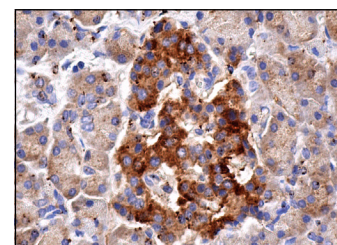
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Dynactin p62 (H-12): sc-55604. Western blot analysis of Dynactin p62 expression in C6 whole cell lysate.



Dynactin p62 (H-12): sc-55604. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of Islets of Langerhans and glandular cells.

## SELECT PRODUCT CITATIONS

1. Song, M., Wang, Y., Shang, Z.F., Liu, X.D., Xie, D.F., Wang, Q., Guan, H. and Zhou, P.K. 2016. Bystander autophagy mediated by radiation-induced exosomal miR-7-5p in non-targeted human bronchial epithelial cells. *Sci. Rep.* 6: 30165.
2. Saito, K., Murayama, T., Hata, T., Kobayashi, T., Shibata, K., Kazuno, S., Fujimura, T., Sakurai, T. and Toyoshima, Y.Y. 2020. Conformational diversity of Dynactin sidearm and domain organization of its subunit p150. *Mol. Biol. Cell* 31: 1218-1231.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.