

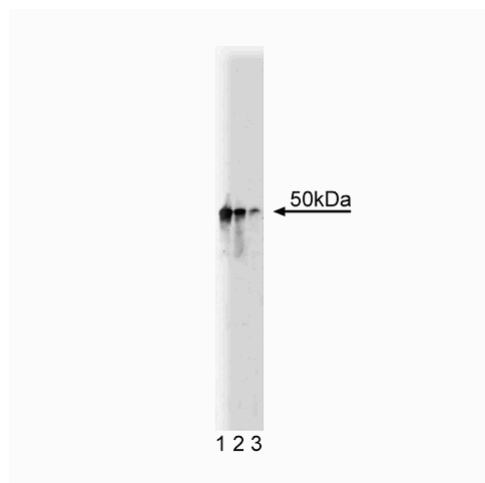
## Technical Data Sheet

**Purified Mouse Anti-Dynactin p50****Product Information**

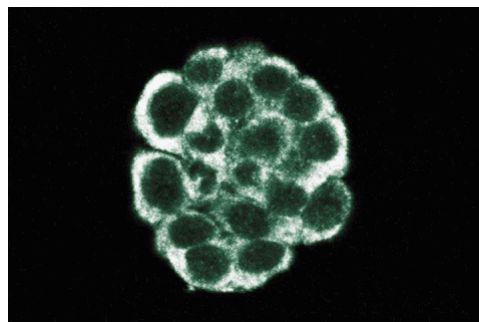
|                         |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| <b>Material Number:</b> | <b>611002</b>                                                                |
| <b>Size:</b>            | 50 µg                                                                        |
| <b>Concentration:</b>   | 250 µg/ml                                                                    |
| <b>Clone:</b>           | 25/Dynactin p50                                                              |
| <b>Immunogen:</b>       | Human Dynactin p50 aa. 55-196                                                |
| <b>Isotype:</b>         | Mouse IgG1                                                                   |
| <b>Reactivity:</b>      | QC Testing: Human<br>Tested in Development: Rat, Mouse, Fly                  |
| <b>Target MW:</b>       | 50 kDa                                                                       |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

**Description**

Dyneins are ubiquitous, multimeric proteins that are responsible for minus end-directed microtubule-based organelle transport. They are divided into two classes, cytosolic and axonemal. The activity of cytosolic dynein is regulated by the multiprotein dynactin complex with which it co-purifies. Dynactin is composed of at least nine polypeptides with p50 being the second most abundant subunit. The complex consists of an F-actin-like core filament of actin-related protein Arp1, a heterodimer that acts as a cap at one end, and a 62kDa subunit at the other end. p150[glued] is the largest subunit of the complex. The precise function of dynactin remains to be determined, but it may be recruited to prometaphase kinetochores to assist in alignment and spindle organization during mitosis. Additionally, dynactin localizes at the tail of cytosolic dynein and activates dynein-mediated vesicle movement. Therefore, dynactin may function to anchor or target dynein to the kinetochore during mitosis.



**Western blot analysis of Dynactin p50 on Jurkat cell lysate.** Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-Dynactin p50.



**Immunofluorescent staining of WDR cells.**

**Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

**Application Notes****Application**

|                    |                           |
|--------------------|---------------------------|
| Western blot       | Routinely Tested          |
| Immunofluorescence | Tested During Development |

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**Recommended Assay Procedure:**

Western blot: Please refer to [http://www.bdbiosciences.com/pharming/en/protocols/Western\\_Blotting.shtml](http://www.bdbiosciences.com/pharming/en/protocols/Western_Blotting.shtml)

**Suggested Companion Products**

| Catalog Number | Name                    | Size   | Clone      |
|----------------|-------------------------|--------|------------|
| 611451         | Jurkat Cell Lysate      | 500 µg | (none)     |
| 554002         | HRP Goat Anti-Mouse Ig  | 1.0 ml | (none)     |
| 554001         | FITC Goat Anti-Mouse Ig | 0.5 mg | Polyclonal |

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

**References**

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Echeverri CJ, Paschal BM, Vaughan KT, Vallee RB. Molecular characterization of the 50-kD subunit of dynactin reveals function for the complex in chromosome alignment and spindle organization during mitosis. *J Cell Biol.* 1996; 132(4):617-633.(Biology)

Holleran EA, Ligon LA, Tokito M, Stankewich MC, Morrow JS, Holzbaur EL. beta III spectrin binds to the Arp1 subunit of dynactin. *J Biol Chem.* 2001; 276(39):36598-36605.(Clone-specific: Immunoprecipitation, Western blot)

Kuo MT, Liu Z, Wei Y. Induction of human MDR1 gene expression by 2-acetylaminofluorene is mediated by effectors of the phosphoinositide 3-kinase pathway that activate NF-kappaB signaling. *Oncogene.* 2002; 21(13):1945-1954.(Clone-specific: Western blot)

Starr DA, Williams BC, Hays TS, Goldberg ML. ZW10 helps recruit dynactin and dynein to the kinetochore. *J Cell Biol.* 1998; 142(3):763-764.(Biology)