

**Dynactin p150Glued (D1W10) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P	H M R	Endogenous	150	Rabbit IgG	#Q14203	1639

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:50  
1:100

**Specificity/Sensitivity**

Dynactin p150Glued (D1W10) Rabbit mAb recognizes endogenous levels of total dynactin p150Glued protein. Based on the amino acid sequence of the peptide antigen used, this antibody is expected to detect all isoforms of dynactin p150Glued, including p135.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val1206 of human dynactin p150Glued protein.

**Background**

Cytoplasmic dynein is a multi-subunit motor complex that regulates microtubule organization as well as the transport and positioning of organelles. Dynactin is a multi-subunit dynein-activating complex, which regulates the interaction of the dynein motor with various cellular cargoes, and enhances dynein's processivity. p150Glued/DCTN1/Dynactin 1 is the largest subunit of the dynactin complex (1-3). In mitosis, cytoplasmic dynein regulates spindle organization, chromosome movement and centrosome separation (4). The dynactin subunit p150Glued is phosphorylated at serine 19 by the mitotic kinase aurora A during anaphase, and this phosphorylation is required for the appropriate regulation of spindle assembly (5). In neurons, axonal transport is important for cellular function and survival. Dysfunction and mutations in dynein and dynactin subunits, including p150Glued, have been linked to human neurodegenerative diseases such as Alzheimer's Disease (6-7), Perry Syndrome (8) and ALS (9).

**Background References**

- Gill, S.R. et al. (1991) *J Cell Biol* 115, 1639-50.
- McGrail, M. et al. (1995) *J Cell Biol* 131, 411-25.
- Plamann, M. et al. (1994) *J Cell Biol* 127, 139-149.
- Raaijmakers, J.A. and Medema, R.H. (2014) *Chromosoma* 123, 407-22.
- Reboutier, D. et al. (2013) *J Cell Biol* 201, 65-79.
- Fujiwara, T. et al. (2012) *J Neurochem* 122, 162-74.
- Kimura, N. et al. (2016) *Am J Pathol* , .
- Araki, E. et al. (2014) *Mov Disord* 29, 1201-4.
- Stockmann, M. et al. (2013) *J Neural Transm (Vienna)* 120, 785-98.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat

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