



## Anti-Dynactin subunit 1 Antibody

**Alternative Names:** DAP-150, DP-150, P135, 150 kDa dynein-associated polypeptide, p150-glued

**Catalogue Number:** AB19-10093-100ug

**Size:** 100 µg

### Background Information

Dynactin subunit 1 (DCTN1) is the largest (approximately 150 kD) subunit of dynactin, a macromolecular complex consisting of multiple subunits ranging in from 22 to 150 kD. Dynactin binds to both microtubules and cytoplasmic dynein and is involved in a diverse range of cellular functions, including ER-to-Golgi transport, the centripetal movement of lysosomes and endosomes, spindle formation, chromosome movement, nuclear positioning, and axonogenesis. DCTN1 contains N-terminal CAP-Gly and basic domains, followed by the coiled-coil (CC) 1 and 2 domains [1]. The CAP-Gly and basic domains form the microtubule binding domain (MTBD) [2] and the CC1 and CC2 domains mediate the interactions with dynein intermediate chain (DIC) and the other dynactin subunits [1]. The MTBDs of DCTN1 allow microtubule binding during spindle formation and chromosome movement making them essential for cell division[3], Mutations in the DCTN1 gene are associated with amyotrophic lateral sclerosis (ALS) and distal hereditary motor neuronopathy type VIIB (HMN7B/spinal and bulbar muscular atrophy/dSBMA).

### Product Information

<b>Antibody Type:</b>	Polyclonal	<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG	<b>Species Reactivity:</b>	Human, Mouse, Rat
<b>Immunogen:</b>	Full length recombinant human DCTN1		
<b>Format:</b>	100 µg in 100 µl PBS with 0.02% sodium azide, 50% glycerol, pH7.3.		
<b>Storage Conditions:</b>	Store at -20°C. Avoid freeze / thaw cycles.		
<b>Applications:</b>	WB IHC WB 1:200-1000. IHC 1:100-300.		

### Additional Information

<b>Subcellular location:</b>	Cytoplasm cytoskeleton	<b>MW:</b>	142kDa (Intended as a general guide and does not allow for all isoforms and species variations)
<b>Gene ID</b>	1639	<b>Uniprot ID:</b>	Q14203



## References

- 1: Schroer TA. Dynactin. *Annu Rev Cell Dev Biol.* 2004;20:759–79.
- 2: Culver-Hanlon TL, Lex SA, Stephens AD, Quintyne NJ, King SJ. A microtubule-binding domain in dynactin increases dynein processivity by skating along microtubules. *Nat Cell Biol.* 2006;8(3):264–70.
- 3: Robinson RW, Snyder JA. Colocalization studies of Arp1 and p150Glued to spindle microtubules during mitosis: the effect of cytochalasin on the organization of microtubules and motor proteins in PtK1 cells. *Cell Biol Int.* 2006;30(7):631–9.