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Dynactin 1(N-terminus) Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP53274

Product Information

Application	WB, IP
Primary Accession	Q14203
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Conjugate	Unconjugated
Immunogen	Purified recombinant Dynactin 1 protein fragments expressed in E.coli
Purification	Affinity Purified
Calculated MW	141695

Additional Information

Gene ID	1639
Other Names	150 kDa dynein associated polypeptide;150 kDa dynein-associated polypeptide;DAP 150;DAP-150;DAP150;DCTN 1;DCTN1;DCTN1_HUMAN;DP 150;DP-150;DP150;Dynactin 1 (p150 Glued (Drosophila) homolog);dynactin 1 (p150 glued homolog Drosophila);Dynactin 1;Dynactin subunit 1;Dynactin1;HMN7B;p135;p150 Glued (Drosophila) homolog;p150 glued;p150 glued homolog;p150(GLUED) DROSOPHILA HOMOLOG OF;p150-glued;p150glued.
Dilution	WB~~1:500 IP~~1:500
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	DCTN1 (HGNC:2711)
Function	Part of the dynactin complex that activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity). Plays a key role in dynein-mediated retrograde transport of vesicles and organelles along microtubules by recruiting and tethering dynein to microtubules. Binds to both dynein and microtubules providing a link between specific cargos, microtubules and dynein. Essential for targeting dynein to microtubule plus

	ends, recruiting dynein to membranous cargos and enhancing dynein processivity (the ability to move along a microtubule for a long distance without falling off the track). Can also act as a brake to slow the dynein motor during motility along the microtubule (PubMed:25185702). Can regulate microtubule stability by promoting microtubule formation, nucleation and polymerization and by inhibiting microtubule catastrophe in neurons. Inhibits microtubule catastrophe by binding both to microtubules and to tubulin, leading to enhanced microtubule stability along the axon (PubMed:23874158). Plays a role in metaphase spindle orientation (PubMed:22327364). Plays a role in centriole cohesion and subdistal appendage organization and function. Its recruitment to the centriole in a KIF3A-dependent manner is essential for the maintenance of centriole cohesion and the formation of subdistal appendage. Also required for microtubule anchoring at the mother centriole (PubMed:23386061). Plays a role in primary cilia formation (PubMed:25774020).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasm, cytoskeleton, spindle. Nucleus envelope. Cytoplasm, cell cortex. Note=Localizes to microtubule plus ends (PubMed:17828277, PubMed:22777741, PubMed:25774020). Localizes preferentially to the ends of tyrosinated microtubules (PubMed:26972003). Localization at centrosome is regulated by SLK- dependent phosphorylation (PubMed:23985322). Localizes to centrosome in a PARKDA-dependent manner (PubMed:20719959). Localizes to the subdistal appendage region of the centriole in a KIF3A-dependent manner (PubMed:23386061). PLK1-mediated phosphorylation at Ser-179 is essential for its localization in the nuclear envelope (PubMed:20679239).
Tissue Location	Brain.

Background

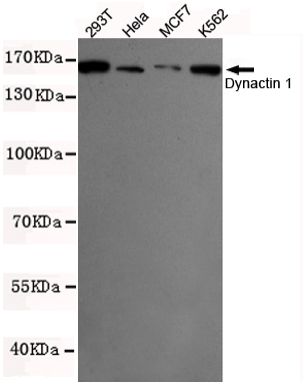
Required for the cytoplasmic dynein-driven retrograde movement of vesicles and organelles along microtubules. Dynein- dynactin interaction is a key component of the mechanism of axonal transport of vesicles and organelles.

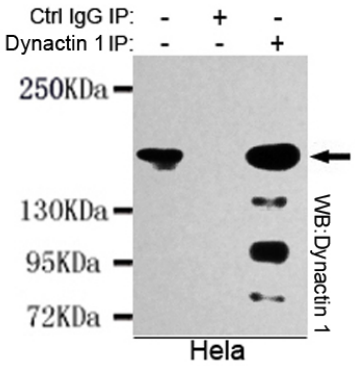
References

Collin G.B.,et al.Genomics 53:359-364(1998).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Hillier L.W.,et al.Nature 434:724-731(2005).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Holzbaur E.L.F.,et al.Genomics 31:398-399(1996).

Images

Western blot detection of Dynactin 1 in K562,MCF7,293T and Hela cell lysates using Dynactin 1 mouse mAb (1:500 diluted).Predicted band size:150KDa.Observed band size: 150KDa.





Immunoprecipitation analysis of Hela cell lysates using Dynactin 1 mouse mAb.

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