

DCTN1 / Dynactin 1 Antibody (C-Terminus)
Goat Polyclonal Antibody
Catalog # ALS12191**Specification**

DCTN1 / Dynactin 1 Antibody (C-Terminus) - Product Information

Application	WB, IHC
Primary Accession	Q14203
Reactivity	Human, Mouse, Hamster, Monkey, Horse
Host	Goat
Clonality	Polyclonal
Calculated MW	142kDa KDa

DCTN1 / Dynactin 1 Antibody (C-Terminus) - Additional Information**Gene ID** 1639**Other Names**

Dynactin subunit 1, 150 kDa dynein-associated polypeptide, DAP-150, DP-150, p135, p150-glued, DCTN1

Target/Specificity

Human DCTN1. This antibody is expected to recognise all reported isoforms (NP_004073.2; NP_075408.1; NP_001128512.1; NP_001128513.1).

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

DCTN1 / Dynactin 1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

DCTN1 / Dynactin 1 Antibody (C-Terminus) - 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

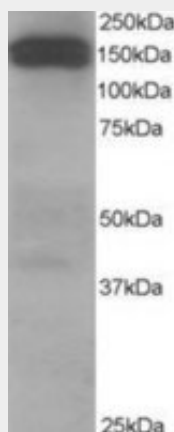
Brain.

DCTN1 / Dynactin 1 Antibody (C-Terminus) - Protocols

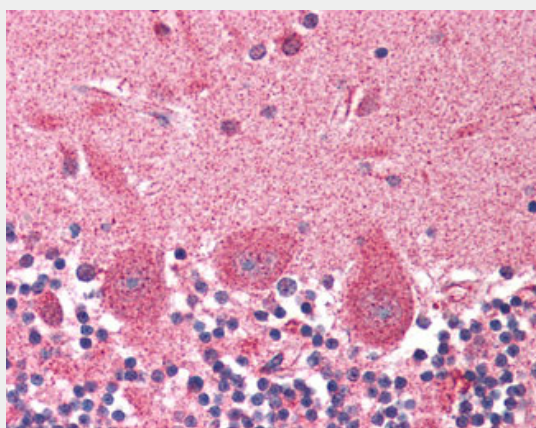
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DCTN1 / Dynactin 1 Antibody (C-Terminus) - Images



Antibody staining (1 ug/ml) of Human Testis lysate (RIPA buffer, 35 ug total protein per lane).



Anti-DCTN1 antibody IHC of human brain, cerebellum.

DCTN1 / Dynactin 1 Antibody (C-Terminus) - 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.

DCTN1 / Dynactin 1 Antibody (C-Terminus) - 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).