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DCTN1 / Dynactin 1 Antibody (aa1216-1278)

Rabbit Polyclonal Antibody
Catalog # ALS16917

Specification

DCTN1 / Dynactin 1 Antibody (aa1216-1278) - Product Information

Application	**IHC, ICC, WB**
Primary Accession	Q14203
Other Accession	1639
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**141695**

DCTN1 / Dynactin 1 Antibody (aa1216-1278) - Additional Information

Gene ID 1639

Other Names
DCTN1, DAP-150, Dynactin subunit 1, DP-150, Dynactin 1, HMN7B, p150-glued, p135

Target/Specificity
Human DCTN1

Reconstitution & Storage
PBS, pH 7.0, 1% BSA, 20% glycerol, 0.01% Thimerosal. Keep as concentrated solution. Aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Precautions
DCTN1 / Dynactin 1 Antibody (aa1216-1278) is for research use only and not for use in diagnostic or therapeutic procedures.

DCTN1 / Dynactin 1 Antibody (aa1216-1278) - 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.

Volume
50 µl

DCTN1 / Dynactin 1 Antibody (aa1216-1278) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DCTN1 / Dynactin 1 Antibody (aa1216-1278) - Images

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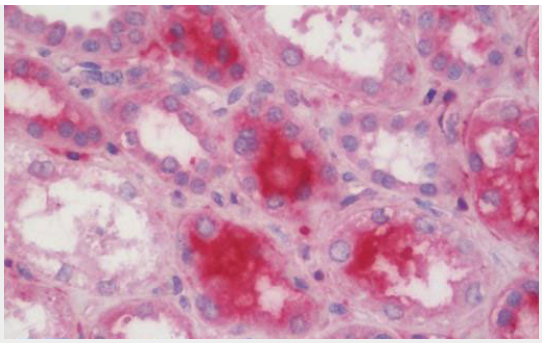
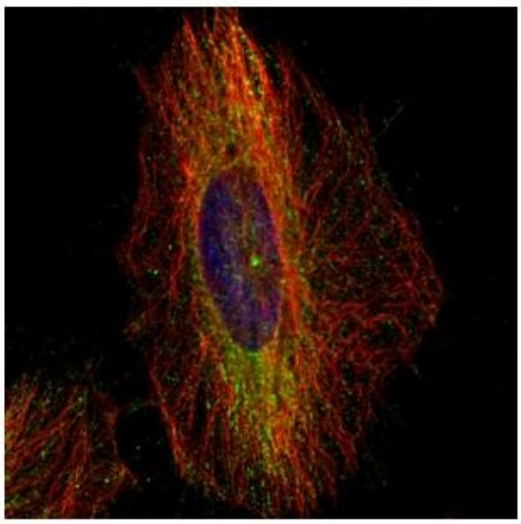
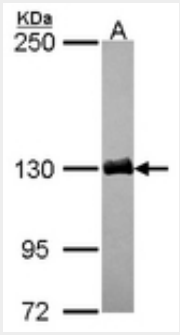


Anti-DCTN1 / Dynactin 1 antibody IHC staining of human kidney.



Confocal immunofluorescence analysis (Olympus FV10i) of methanol-fixed HeLa using DCTN1 antibody...



Sample (30 ug of whole cell lysate). A: JurKat. 5% SDS PAGE. DCTN1 antibody diluted at 1:3000.

DCTN1 / Dynactin 1 Antibody (aa1216-1278) - 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 (aa1216-1278) - 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).