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KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1456

Specification

KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, ICC**
Primary Accession	Q9GZM8
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 38 kDa , observed, 40 kDa KDa**
Gene Name	**NDEL1**
Aliases	**NDEL1; NudE Neurodevelopment Protein 1 Like 1; MITAP1; NUDEL; NDE1L1; NDE2; Nuclear Distribution Protein NudE-Like 1; Mitosin-Associated Protein 1; Protein Nudel; EOPA; NudE Nuclear Distribution Gene E Homolog (A. Nidulans)-Like 1; NudE Nuclear Distribution E Homolog (A. Nidulans)-Like 1; NudE Nuclear Distribution Gene E Homolog-Like 1; NudE Nuclear Distribution E Homolog-Like 1; Mitosin-Associated Protein MITAP1; Endooligopeptidase A**
Immunogen	**A synthesized peptide derived from human NUDEL**

KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**81565**

Other Names
Nuclear distribution protein nudE-like 1, Protein Nudel, Mitosin-associated protein 1, NDEL1, EOPA, MITAP1, NUDEL

KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody - Protein Information

Name NDEL1

Synonyms EOPA, MITAP1, NUDEL

Function
Required for organization of the cellular microtubule array and microtubule anchoring at the centrosome. May regulate microtubule organization at least in part by targeting the microtubule severing protein KATNA1 to the centrosome. Also positively regulates the activity of the minus-end directed microtubule motor protein dynein. May enhance dynein-mediated microtubule sliding by targeting dynein to the microtubule plus ends. Required for several dynein- and microtubule-dependent processes such as the maintenance of Golgi integrity, the centripetal

motion of secretory vesicles and the coupling of the nucleus and centrosome. Also required during brain development for the migration of newly formed neurons from the ventricular/subventricular zone toward the cortical plate. Plays a role, together with DISC1, in the regulation of neurite outgrowth. Required for mitosis in some cell types but appears to be dispensible for mitosis in cortical neuronal progenitors, which instead requires NDE1. Facilitates the polymerization of neurofilaments from the individual subunits NEFH and NEFL. Positively regulates lysosome peripheral distribution and ruffled border formation in osteoclasts (By similarity). Plays a role, together with DISC1, in the regulation of neurite outgrowth (By similarity). May act as a RAB9A/B effector that tethers RAB9-associated late endosomes to the dynein motor for their retrograde transport to the trans-Golgi network (PubMed:34793709).

Cellular Location
Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle. Note=Localizes to the cell body of the motor neurons and colocalizes with assembled neurofilaments within axonal processes. Localizes to the microtubules of the manchette in elongated spermatids. Colocalizes with DISC1 in the perinuclear region, including the centrosome (By similarity). Localizes to the interphase centrosome and the mitotic spindle. Localizes to the kinetochore in a CENPF-dependent manner.

Tissue Location
Expressed in brain, heart, kidney, liver, lung, pancreas, placenta and skeletal muscle.

KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody - 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

KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody - Images

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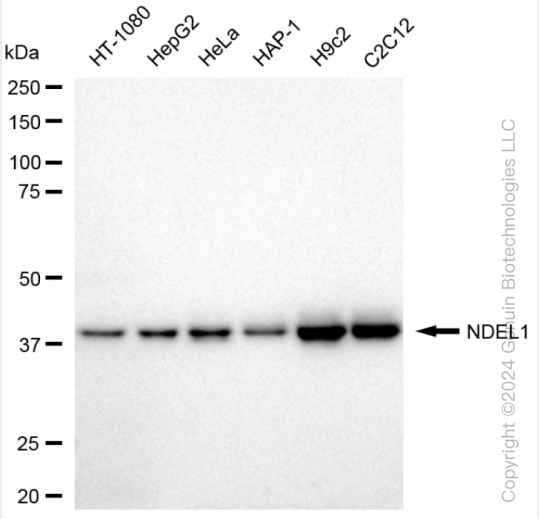
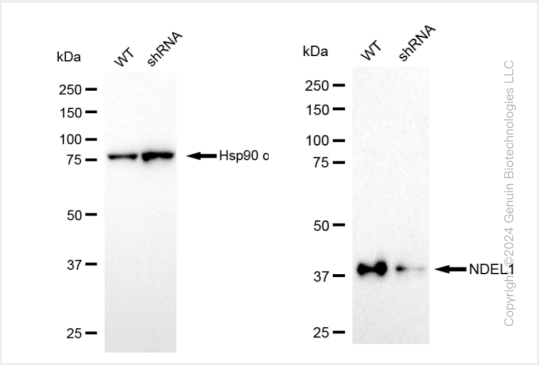
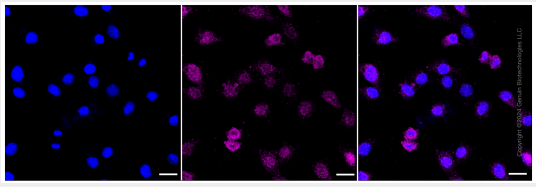


Western blotting analysis using anti-NDEL1 antibody (Cat#AGI1456). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-NDEL1 antibody (Cat#AGI1456, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-NDEL1 antibody (Cat#AGI1456). NDEL1 expression in wild type (WT) and NDEL1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-NDEL1 antibody (Cat#AGI1456, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Immunocytochemical staining of C2C12 cells with NDEL1 antibody (Cat#AGI1456, 1:1,000). Nuclei were stained blue with DAPI; NDEL1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Very low. Scale bar: 20 µm.