

# KD-Validated Anti-NDEL1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1456

## Product Information

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| <b>Application</b>       | WB, ICC                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Primary Accession</b> | <a href="#">Q9GZM8</a>                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Reactivity</b>        | Rat, Human, Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Clonality</b>         | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Isotype</b>           | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Clone Names</b>       | 23GB4565                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Calculated MW</b>     | 38375                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Name</b>         | NDEL1                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Aliases</b>           | 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 |
| <b>Immunogen</b>         | A synthesized peptide derived from human NUDEL                                                                                                                                                                                                                                                                                                                                                                                                         |

## Additional Information

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| <b>Gene ID</b>     | 81565                                                                                                             |
| <b>Other Names</b> | Nuclear distribution protein nudE-like 1, Protein Nudel, Mitosin-associated protein 1, NDEL1, EOPA, MITAP1, NUDEL |

## Protein Information

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| <b>Name</b>     | NDEL1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b> | EOPA, MITAP1, NUDEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Function</b> | 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 dispensable 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.