abcam

Product datasheet

Anti-NDEL1 antibody [EPR5068] ab124895

Recombinant RabMAb

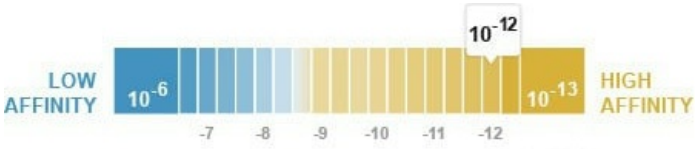
1 References 4 Images

Overview

Product name	Anti-NDEL1 antibody [EPR5068]
Description	Rabbit monoclonal [EPR5068] to NDEL1
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide corresponding to Human NDEL1 (N terminal). Database link: **Q9GZM8**
Positive control	Human Brain tissue, SH-SY5Y lysate, HeLa lysate, Jurkat lysate, 293T lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 2.90 \times 10^{-12}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5068
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124895 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 38 kDa.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval is recommended.

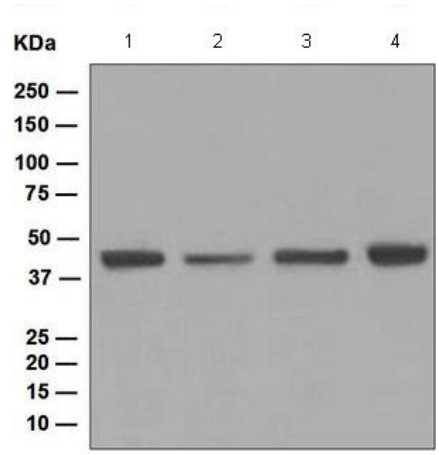
Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

Target

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.
Tissue specificity	Expressed in brain, heart, kidney, liver, lung, pancreas, placenta and skeletal muscle.
Sequence similarities	Belongs to the nudE family.
Developmental stage	Expression peaks in mitosis.
Post-translational modifications	Phosphorylated in mitosis. Can be phosphorylated by CDK1, CDK5 and MAPK1. Phosphorylation by CDK5 promotes interaction with KATNA1 and YWHAE.
Cellular localization	Cytoplasm > cytoskeleton. Cytoplasm > cytoskeleton > centrosome. Chromosome > centromere > kinetochore. Cytoplasm > cytoskeleton > spindle. 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.

Images



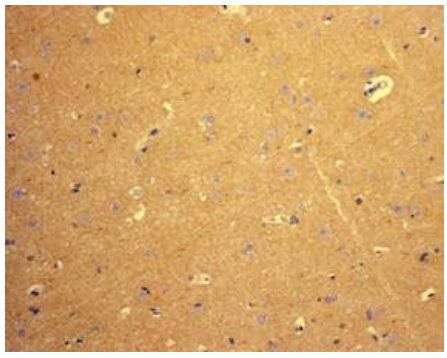
Western blot - Anti-NDEL1 antibody [EPR5068] (ab124895)

All lanes : Anti-NDEL1 antibody [EPR5068] (ab124895) at 1/1000 dilution

Lane 1 : SH-SY5Y cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : Jurkat lysate
Lane 4 : 293T (Human embryonic kidney epithelial cell) cell lysate

Lysates/proteins at 10 µg per lane.

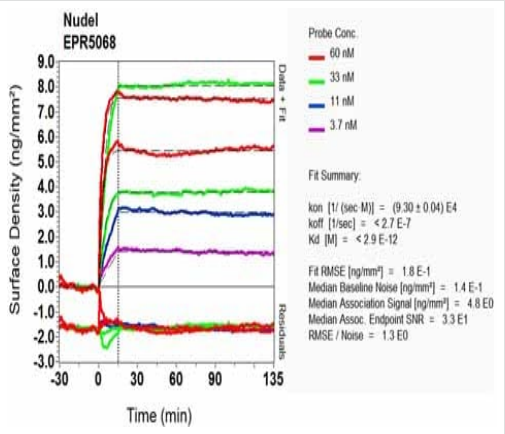
Predicted band size: 38 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDEL1 antibody [EPR5068] (ab124895)

ab124895, at 1/50 dilution, staining NDEL1 in Formalin-fixed, Paraffin-embedded Human Brain tissue by Immunohistochemistry

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

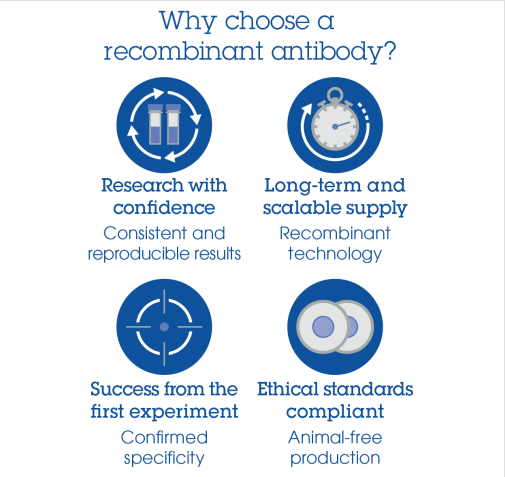


OI-RD Scanning - Anti-NDEL1 antibody [EPR5068] (ab124895)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-NDEL1 antibody [EPR5068] (ab124895)

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