



Rabbit Anti-phospho-NDEL1 (Thr219) antibody

SL5524R

Product Name:	phospho-NDEL1 (Thr219)
Chinese Name:	磷酸化中心粒蛋白Nudel抗体
Alias:	NDEL1(phospho T219); NDEL1(phospho Thr219); Nudel (phospho T219); p-Nudel (phospho T219); Nudel(phospho T219); A. nidulans; DKFZp451M0318; ENDOOLIGOPEPTIDASE A; EOPA; MITAP 1; MITAP1; Mitosin associated protein 1; Mitosin associated protein MITAP1; Mitosin-associated protein 1; Ndel 1; Ndel1; NDEL1_HUMAN; Nuclear distribution gene E like homolog 1; Nuclear distribution protein nudE like 1; Nuclear distribution protein nudE-like 1; NUDE like protein; NudE nuclear distribution gene E homolog like 1 A. nidulans; NudE nuclear distribution gene E homolog like 1; NUDEL; Protein Nudel.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	38kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human NDEL1 around the phosphorylation site of Thr219:PA(p-T)PV
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of

	antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>Nudel is important for normal cortical development. It is involved in microtubule organization, nuclear translocation, and neuronal positioning in concert with various other factors (including Lis1, Pafah1b1, Pafah1b2, dynein, dynorphin A and cdk5). Western blot analysis of mouse tissues shows abundant expression of Nudel in brain and testis, and much lower expression in heart, liver, kidney, and skeletal muscle. In fractionated rat brain, Nudel and Lis1 are both found in fractions enriched for postsynaptic density proteins. Immunostaining of embryonic day 18 mouse brain sections revealed staining of migrating neurons and thalamocortical axons of the intermediate zone of the developing cerebral cortex, as well as several other developing brain regions. The deduced protein contains 345 amino acids and has a calculated molecular mass of 38.4 kDa. It has a coiled coil motif (residues 19 to 201), followed by several potential phosphorylation sites for casein kinase II, protein kinase C or CDK5. Nudel shares about 50% identity with mouse and human NUDE proteins.</p> <p>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 dispensable for mitosis in cortical neuronal progenitors, which instead requires NDE1. Facilitates the polymerization of neurofilaments from the individual subunits NEFH and NEFL.</p> <p>Subunit: Interacts with YWHAE. Interacts directly with NEFL and indirectly with NEFH. Interacts with microtubules (By similarity). Self-associates. Interacts with DISC1, dynein, dynactin, tubulin gamma, KATNA1, KATNB1, PAFAH1B1, PCM1 and PCNT. Interacts (via C-terminus) with CENPF. Interacts with ZNF365.</p> <p>Subcellular Location: Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, 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.</p>

Tissue Specificity:

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

Post-translational modifications:

Phosphorylated in mitosis. Can be phosphorylated by CDK1, CDK5 and MAPK1.

Phosphorylation by CDK5 promotes interaction with KATNA1 and YWHAE.

Palmitoylation at Cys-273 reduces affinity for dynein.

Similarity:

Belongs to the nudE family.

SWISS:

Q9GZM8

Gene ID:

81565

Database links:

[Entrez Gene: 489495](#) Dog

[Entrez Gene: 81565](#) Human

[Entrez Gene: 170845](#) Rat

[Omim: 607538](#) Human

[SwissProt: Q9GZM8](#) Human

[SwissProt: Q78PB6](#) Rat

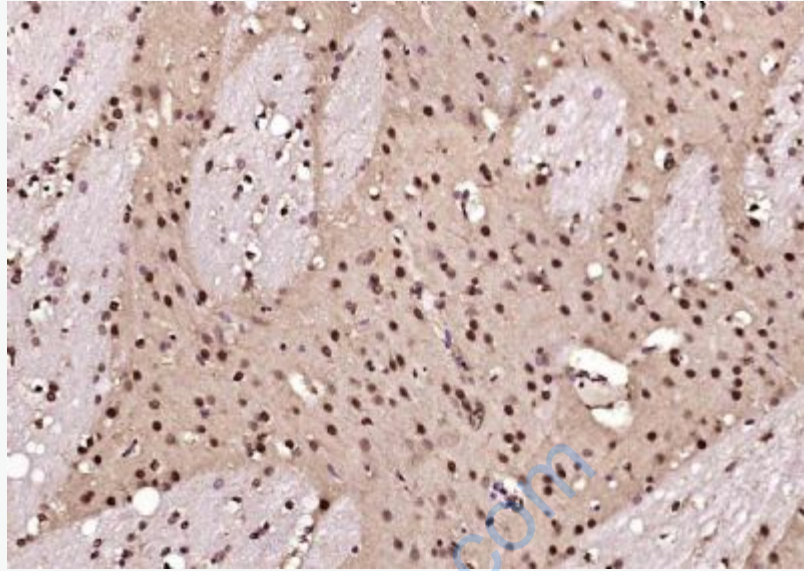
[Unigene: 372123](#) Human

[Unigene: 2947](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

中心粒蛋白Nudel是动物细胞中, 中心体微管组织的主要细胞器, 是细胞质动力蛋白调节因子在中心体组装及微管组织中发挥重要作用。



Picture:

Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-NDEL1 (Thr219)) Polyclonal Antibody, Unconjugated (SL5524R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.