

# Anti-DYNLL1/Pin Rabbit Monoclonal Antibody

Catalog # ABO13833

#### Specification

# Anti-DYNLL1/Pin Rabbit Monoclonal Antibody - Product Information

Application WB, IHC, IF, ICC, IP **Primary Accession** P63167 Rabbit Host Isotype Rabbit IgG Reactivity Rat, Human, Mouse Clonality Monoclonal Format Liquid Description Anti-DYNLL1/Pin Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

## Anti-DYNLL1/Pin Rabbit Monoclonal Antibody - Additional Information

Gene ID 8655

**Other Names** Dynein light chain 1, cytoplasmic, 8 kDa dynein light chain, DLC8, Dynein light chain LC8-type 1, Protein inhibitor of neuronal nitric oxide synthase, PIN, DYNLL1 {ECO:0000303|Ref.9, ECO:0000312|HGNC:HGNC:15476}

Calculated MW 10366 MW KDa

Application Details WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:50

**Subcellular Localization** Cytoplasm, cytoskeleton. Nucleus. Mitochondrion. Upon induction of apoptosis translocates together with BCL2L11 to mitochondria.

Tissue Specificity Ubiquitous..

**Contents** Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen A synthesized peptide derived from human DYNLL1

Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term



storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

# Anti-DYNLL1/Pin Rabbit Monoclonal Antibody - Protein Information

Name DYNLL1 {ECO:0000303|Ref.9, ECO:0000312|HGNC:HGNC:15476}

### Function

Acts as one of several non-catalytic accessory components of the cytoplasmic dynein 1 complex that are thought to be involved in linking dynein to cargos and to adapter proteins that regulate dynein function (By similarity). Cytoplasmic dynein 1 acts as a motor for the intracellular retrograde motility of vesicles and organelles along microtubules (By similarity). May play a role in changing or maintaining the spatial distribution of cytoskeletal structures (By similarity). In addition to its role in cytoskeleton and transport, acts as a protein-protein adapter, which inhibits and/or sequesters target proteins (PubMed:<a href="http://www.uniprot.org/citations/10198631" target=" blank">10198631</a>, PubMed:<a href="http://www.uniprot.org/citations/15193260" target=" blank">15193260</a>, PubMed:<a href="http://www.uniprot.org/citations/15891768" target=" blank">15891768</a>, PubMed:<a href="http://www.uniprot.org/citations/16684779" target=" blank">16684779</a>, PubMed:<a href="http://www.uniprot.org/citations/30464262" target=" blank">30464262</a>, PubMed:<a href="http://www.uniprot.org/citations/37696958" target="\_blank">37696958</a>). Involved in the response to DNA damage by acting as a key regulator of DNA end resection: when phosphorylated at Ser-88, recruited to DNA double- strand breaks (DSBs) by TP53BP1 and acts by disrupting MRE11 dimerization, thereby inhibiting DNA end resection (PubMed:<a href="http://www.uniprot.org/citations/30464262" target=" blank">30464262</a>, PubMed:<a href="http://www.uniprot.org/citations/37696958" target=" blank">37696958</a>). In a subset of DSBs, DYNLL1 remains unphosphorylated and promotes the recruitment of the Shieldin complex (PubMed: <a href="http://www.uniprot.org/citations/37696958" target=" blank">37696958</a>). Binds and inhibits the catalytic activity of neuronal nitric oxide synthase/NOS1 (By similarity). Promotes transactivation functions of ESR1 and plays a role in the nuclear localization of ESR1 (PubMed: <a href="http://www.uniprot.org/citations/15891768" target=" blank">15891768</a>, PubMed:<a href="http://www.uniprot.org/citations/16684779" target=" blank">16684779</a>). Regulates apoptotic activities of BCL2L11 by sequestering it to microtubules (PubMed:<a href="http://www.uniprot.org/citations/10198631" target=" blank">10198631</a>, PubMed:<a href="http://www.uniprot.org/citations/15193260" target="\_blank">15193260</a>). Upon apoptotic stimuli the BCL2L11-DYNLL1 complex dissociates from cytoplasmic dynein and translocates to mitochondria and sequesters BCL2 thus neutralizing its antiapoptotic activity (PubMed:<a href="http://www.uniprot.org/citations/10198631" target=" blank">10198631</a>, PubMed:<a href="http://www.uniprot.org/citations/15193260" target=" blank">15193260</a>).

#### **Cellular Location**

Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome. Cytoplasm, cytoskeleton. Nucleus Mitochondrion. Note=Upon induction of apoptosis translocates together with BCL2L11 to mitochondria (PubMed:18084006). Recruited to DNA double-strand breaks (DSBs) by TP53BP1 when phosphorylated at Ser-88 (PubMed:37696958)

**Tissue Location** Ubiquitous (PubMed:8628263). Expressed in testis (PubMed:22965910).

### Anti-DYNLL1/Pin Rabbit Monoclonal Antibody - Protocols

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



- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-DYNLL1/Pin Rabbit Monoclonal Antibody - Images



Western blot analysis of DYNLL1 expression in HeLa cell lysate.