

DYNLL1 Rabbit mAb

Catalog # AP75374

Product Information

ApplicationWB, IHC-P, IPPrimary AccessionP63167

Reactivity Human, Mouse

Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 10366

Additional Information

Gene ID 8655

Other Names DYNLL1

Dilution WB~~1/500-1/1000 IHC-P~~N/A IP~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

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:10198631, PubMed:15193260,

PubMed: 15891768, PubMed: 16684779, PubMed: 30464262,

PubMed: 37696958). 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:<u>30464262</u>, PubMed:<u>37696958</u>). In a subset of DSBs, DYNLL1 remains unphosphorylated and promotes the recruitment of the Shieldin complex (PubMed:<u>37696958</u>). 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: 15891768, PubMed: 16684779). Regulates apoptotic activities of BCL2L11 by sequestering it to microtubules (PubMed: 10198631, PubMed: 15193260). Upon apoptotic stimuli the BCL2L11-DYNLL1 complex dissociates from cytoplasmic dynein and translocates to mitochondria and sequesters BCL2 thus neutralizing its antiapoptotic activity (PubMed: 10198631, PubMed: 15193260).

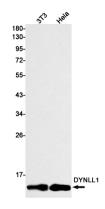
Cellular Location

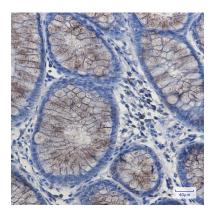
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome. Cytoplasm, cytoskeleton. Nucleus Mitochondrion. Note=Upon induction of apoptosis translocates together with BCL2L11 to mitochondria (PubMed:18084006). Recruited to DNA double-strand breaks (DSBs) by TP53BP1 when phosphorylated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

Tissue Location

Ubiquitous (PubMed:8628263). Expressed in testis (PubMed:22965910).

Images





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