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KD-Validated Anti-DYNLL1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1512

Specification

KD-Validated Anti-DYNLL1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	P63167
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 10 kDa , observed, 10 kDa KDa**
Gene Name	**DYNLL1**
Aliases	**DYNLL1; Dynein Light Chain LC8-Type 1; DLC1; DLC8; PIN; DNCL1; LC8; Protein Inhibitor Of Neuronal Nitric Oxide Synthase; Dynein, Cytoplasmic, Light Polypeptide 1; Dynein Light Chain 1, Cytoplasmic; 8 KDa Dynein Light Chain; DNCLC1; Hdlc1; HDLC1; Cytoplasmic Dynein Light Polypeptide; LC8a**
Immunogen	**A synthesized peptide derived from human DYNLL1**

KD-Validated Anti-DYNLL1 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}

KD-Validated Anti-DYNLL1 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:10198631, PubMed:15193260, PubMed:15891768, PubMed:16684779, PubMed:<a href="http://www.uniprot.org/citations/30464262"

target="_blank">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:30464262, PubMed:37696958). In a subset of DSBs, DYNLL1 remains unphosphorylated and promotes the recruitment of the Shieldin complex (PubMed:37696958). 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).

KD-Validated Anti-DYNLL1 Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-DYNLL1 Rabbit Monoclonal Antibody - Images

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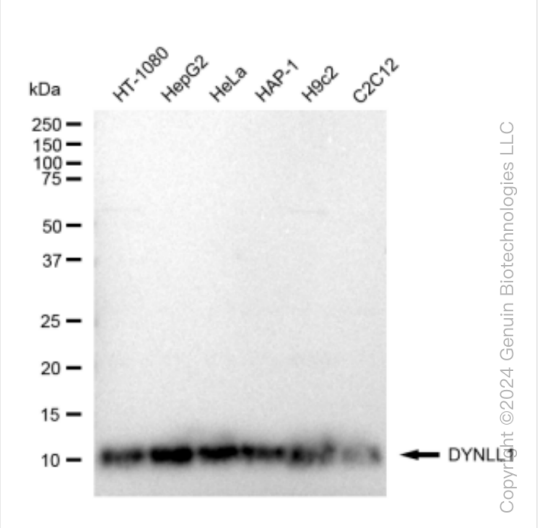
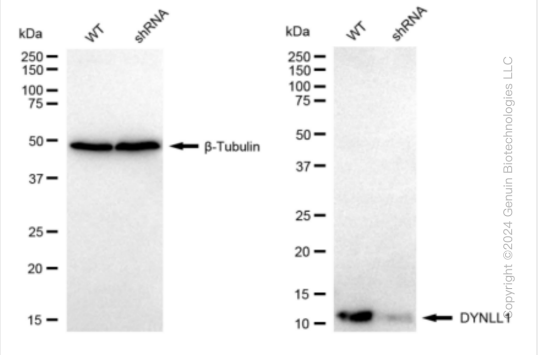
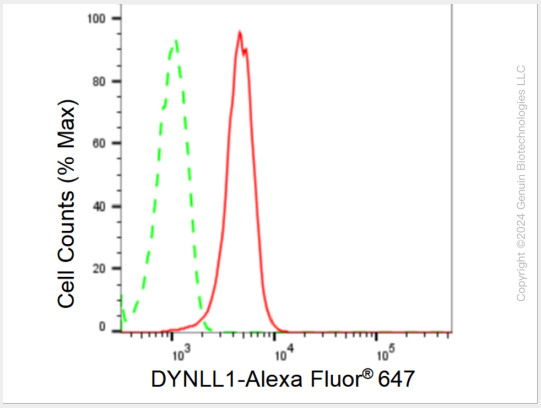


Western blotting analysis using anti-DYNLL1 antibody (Cat#AGI1512). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-DYNLL1 antibody (Cat#AGI1512, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-DYNLL1 antibody (Cat#AGI1512). DYNLL1 expression in wild type (WT) and DYNLL1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-DYNLL1 antibody (Cat#AGI1512, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of DYNLL1 expression in HepG2 cells using DYNLL1 antibody (Cat#AGI1512, 1:2,000). Green, isotype control; red, DYNLL1.