

DYNLL1 Recombinant Rabbit mAb

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Catalog # AP94490

Product Information

Application	WB, IHC-P, IHC-F, IF
Host	Rabbit
Clonality	Recombinant
Physical State	Liquid
Immunogen	A synthesized peptide derived from human DYNLL1
Epitope Specificity	1-48/89
Isotype	IgG/Kappa
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton. Nucleus. Mitochondrion. Note=Upon induction of apoptosis translocates together with BCL2L11 to mitochondria.
SIMILARITY	Belongs to the dynein light chain family.
SUBUNIT	Homodimer. Monomer; the monomeric form is incapable of binding to target proteins. The cytoplasmic dynein 1 complex consists of two catalytic heavy chains (HCs) and a number of non-catalytic subunits presented by intermediate chains (ICs), light intermediate chains (LICs) and light chains (LCs); the composition seems to vary in respect to the IC, LIC and LC composition. The heavy chain homodimer serves as a scaffold for the probable homodimeric assembly of the respective non-catalytic subunits. The ICs and LICs bind directly to the HC dimer and the LCs assemble on the IC dimer. Interacts with rabies P protein. Interacts with TXNDC17. Interacts with WWC1 and ESR1. The WWC1-DYNLL1 interaction is mandatory for the recruitment and transactivation functions of ESR1 or DYNLL1 to the target chromatin. Interacts with BCL2L11 isoform 1 and isoform 2. Interacts with BCL2; the interaction is greatly enhanced in the nucleus and in mitochondria upon induction of apoptosis. Interacts with PAK1; the interaction requires dimeric DYNLL1. Interacts with human spumaretrovirus Gag protein; this interaction is critical for intracellular microtubule-dependent viral genome transport toward the centrosome. Interacts with MYZAP. Part of an astrin (SPAG5)-kinastrin (SKAP) complex containing KNSTRN, SPAG5, PLK1, DYNLL1 and SGOL2. Interacts with ATMIN; this interaction inhibits ATMIN transcriptional activity and hence may play a role in a feedback loop whereby DYNLL1 inhibits transactivation of its own promoter by ATMIN. Interacts with NEK9 (not phosphorylated at 'Ser-944').
Post-translational modifications	Phosphorylation at Ser-88 appears to control the dimer-monomer transition. According to PubMed:15193260, it is phosphorylated at Ser-88 by PAK1, however, according to PubMed:18650427, the DYNLL1 dimer is not accessible for PAK1 and the phosphorylation could not be demonstrated in vitro.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cytoplasmic dyneins are large enzyme complexes with a molecular mass of about 1,200 kD. They contain two force-producing heads formed primarily from dynein heavy chains, and stalks linking the heads to a basal domain,

which contains a varying number of accessory intermediate chains. The complex is involved in intracellular transport and motility. The protein described in this record is a light chain and exists as part of this complex but also physically interacts with and inhibits the activity of neuronal nitric oxide synthase. Binding of this protein destabilizes the neuronal nitric oxide synthase dimer, a conformation necessary for activity, and it may regulate numerous biologic processes through its effects on nitric oxide synthase activity. Alternate transcriptional splice variants have been characterized. [provided by RefSeq, Jul 2008]

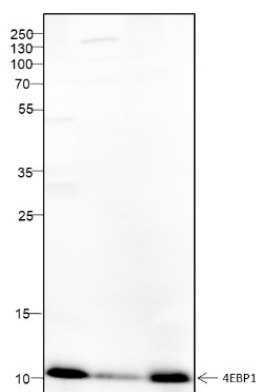
Additional Information

Target/Specificity	Ubiquitous.
Dilution	WB=1:5000,IHC-P=1:100-500,IHC-F=1:100-500,IF=0
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

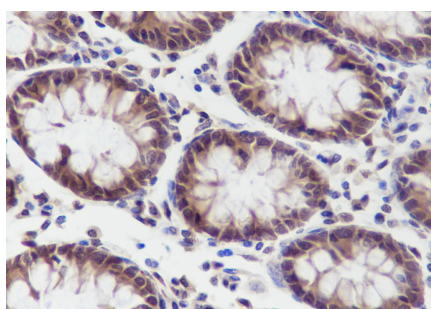
Background

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Images



Blocking buffer: 5% NFDM/TBST Primary Ab dilution: 1:5000 Primary Ab incubation condition: 4°C overnight Secondary Ab: Goat Anti-Rabbit IgG H&L (HRP) Lysate: 1: HeLa, 2: Neuro-2a, 3 : Rat kidney Protein loading quantity: 20 µg Exposure time: 30 s Predicted MW: 10 kDa Observed MW: 10 kDa



Tissue: Human colon Section type: Formalin fixed & Paraffin -embedded section Retrieval method: High temperature and high pressure Retrieval buffer: Tris/EDTA buffer, pH 9.0 Primary Ab dilution: 1:100 Primary Ab incubation condition: 1 hour at room temperature Secondary Ab: SP Kit(Rabbit) (sp-0023) Counter stain: Hematoxylin (Blue) Comment: Color brown is the positive signal for AP94490

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.