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DYNLT1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54450

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	P63172
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	12452
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TCTEL1
Epitope Specificity	21-100/113
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus. Cytoplasm. Cytoplasm, cytoskeleton, spindle. Localizes to mitotic spindles.
SIMILARITY	Belongs to the dynein light chain Tctex-type family.
SUBUNIT	Homodimer (Probable). 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. DYNLT1 and DYNLT3 compete for association with dynein IC (DYNC1I1 or DYNC1I2). Self-associates. Interacts with DYNC1I1 and DYNC1I2. Interacts with RHO. Interacts with DOC2A, DOC2B and SCN10A. Interacts with PVR. Interacts with SVIL isoform 2. Interacts with BMPR2. Interacts with GNB1; the interaction occurs in presence of guanine nucleotide-binding protein G(T) subunit gamma; the interaction diminishes the association of DYNLT1 with dynein IC (DYNC1I1 or DYNC1I2). Interacts with GNB2, GNB3 and GNB5; the interactions occur in presence of guanine nucleotide-binding protein G(T) subunit gamma (By similarity). Interacts with human papillomavirus 16 L2 protein; this interaction is essential for virus intracellular transport during entry.
Post-translational modifications	Phosphorylated by BMPR2; the phosphorylation is abolished by BMPR2 mutations in exon 12 which lead to truncated forms of BMPR2 and which are linked to primary pulmonary hypertension (PPH1) [MIM:178600]. The phosphorylation status is proposed to regulate the association with the cytoplasmic dynein complex and may have role in cytoplasmic dynein cargo release.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cytoplasmic dynein is the major motor protein complex responsible for minus-end, microtubule-based motile processes. Each dynein complex

consists of 2 heavy chains that have ATPase and motor activities, plus a group of accessory polypeptides. TCTEX1 is a dynein light chain involved in cargo binding (Chuang et al., 2005 [PubMed 15992542]).[supplied by OMIM, Mar 2008].

Additional Information

Gene ID	6993
Other Names	Dynein light chain Tctex-type 1, Protein CW-1, T-complex testis-specific protein 1 homolog, DYNLT1, TCTEL1, TCTEX-1, TCTEX1
Target/Specificity	Expressed in heart, placenta, skeletal muscle kidney, pancreas, spleen, prostate, testis, ovary, ileum and colon. Expressed in lung endothelial and smooth muscle cells (at protein level).
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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.

Protein Information

Name	DYNLT1
Synonyms	TCTEL1, TCTEX-1, TCTEX1
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. Cytoplasmic dynein 1 acts as a motor for the intracellular retrograde motility of vesicles and organelles along microtubules. Binds to transport cargos and is involved in apical cargo transport such as rhodopsin-bearing vesicles in polarized epithelia. May also be a accessory component of axonemal dynein. (Microbial infection) Is involved in intracellular targeting of D-type retrovirus gag polyproteins to the cytoplasmic assembly site.
Cellular Location	Golgi apparatus. Cytoplasm. Cytoplasm, cytoskeleton, spindle Note=Localizes to mitotic spindles.
Tissue Location	Expressed in heart, placenta, skeletal muscle kidney, pancreas, spleen, prostate, testis, ovary, ileum and colon Expressed in lung endothelial and smooth muscle cells (at protein level).