

Anti-DYNLT1 Picoband Antibody

Catalog # ABO13047

Product Information

Application	WB, IHC-P, E
Primary Accession	P63172
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for DYNLT1 detection. Tested with WB, IHC-P, Direct ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	12452
Application Details	Western blot, 0.1-0.5 μ g/ml Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml Direct ELISA, 0.1-0.5 μ g/ml
Subcellular Localization	Golgi apparatus. Cytoplasm. Cytoplasm, cytoskeleton, spindle. Localizes to mitotic spindles.
Tissue 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).
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived human DYNLT1 recombinant protein (Position: M1-A80).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C; for one year. After r ° Constitution, at 4 °C; for one month. It ° Can also be aliquotted and stored frozen at -20 °C; for a longer time. Avoid

repeated freezing and thawing.

Protein Information

Name	DYNLT1
Synonyms	TCTEL1, TCTEX-1, TCTEX1
Function	Component of dynein, a family of motor proteins essential for movement along microtubules (By similarity). Required for structural and functional integrity of cilia (By similarity). 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.
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).

Background

Dynein light chain Tctex-type 1 is a protein that in humans is encoded by the DYNLT1 gene. This gene encodes a component of the motor complex, cytoplasmic dynein, which transports cellular cargo along microtubules in the cell. The encoded protein regulates the length of primary cilia which are sensory organelles found on the surface of cells. The protein encoded by this gene interacts with viral proteins, like the minor capsid protein L2 of human papillomavirus, and is required for dynein-mediated delivery of the viral nucleic acid to the host nucleus. This protein interacts with oncogenic nucleoporins to disrupt gene regulation and cause leukemic transformation. Pseudogenes of this gene are present on chromosomes 4 and 17. Alternative splicing results in multiple transcript variants encoding different isoforms.

Images

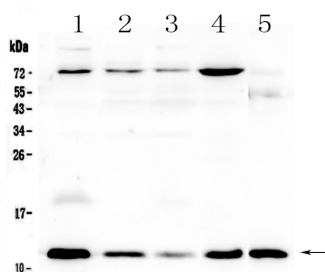


Figure 1. Western blot analysis of DYNLT1 using anti-DYNLT1 antibody (ABO13047). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human U-87MG cell lysates, Lane 2: human MCF-7 cell lysates, Lane 3: human A549 cell lysates, Lane 4: human HepG2 cell lysates, Lane 5: mouse testis tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-DYNLT1 antigen affinity purified polyclonal antibody (Catalog # ABO13047) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is

developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for DYNLT1 at approximately 12KD. The expected band size for DYNLT1 is at 12KD.

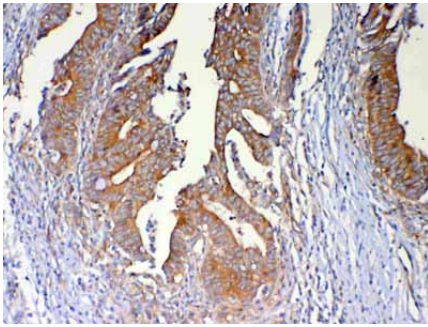


Figure 2. IHC analysis of DYNLT1 using anti-DYNLT1 antibody (ABO13047).DYNLT1 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-DYNLT1 Antibody (ABO13047) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

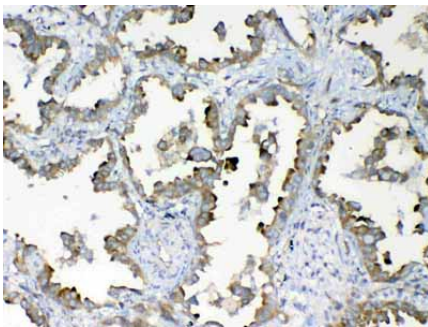


Figure 3. IHC analysis of DYNLT1 using anti-DYNLT1 antibody (ABO13047).DYNLT1 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-DYNLT1 Antibody (ABO13047) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

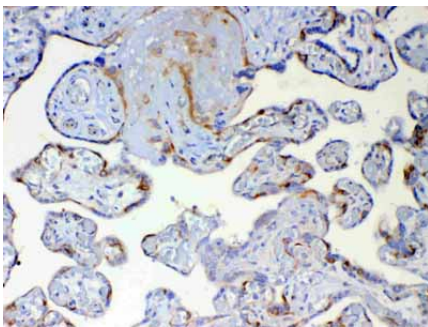


Figure 4. IHC analysis of DYNLT1 using anti-DYNLT1 antibody (ABO13047).DYNLT1 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-DYNLT1 Antibody (ABO13047) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

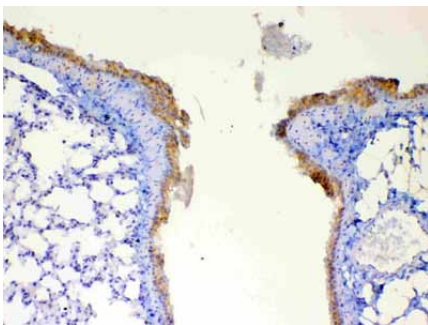


Figure 5. IHC analysis of DYNLT1 using anti-DYNLT1 antibody (ABO13047).DYNLT1 was detected in paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-DYNLT1 Antibody (ABO13047) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the

chromogen.

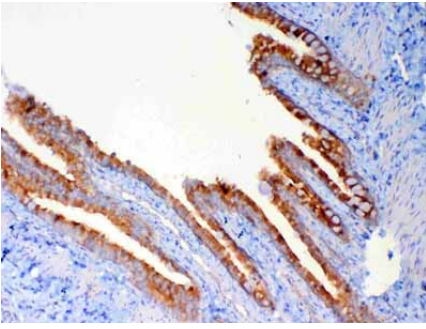


Figure 6. IHC analysis of DYNLT1 using anti-DYNLT1 antibody (ABO13047). DYNLT1 was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-DYNLT1 Antibody (ABO13047) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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