abcam

Product datasheet

Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] ab171964

Recombinant RabMAb

6 References 7 Images

Overview

Product name	Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61]
Description	Rabbit monoclonal [EPR11244-61] to Dynein intermediate chain 1/DNAI1
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Dynein intermediate chain 1/DNAI1 aa 1-200. The exact sequence is proprietary. Database link: **Q9UI46**
Positive control	Human, rat and mouse testis lysates; Human testis and trachea tissues; Jurkat cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR11244-61

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab171964 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000. Predicted molecular weight: 79 kDa.
ICC/IF		1/50 - 1/100. **For unpurified, use 1/50 - 1/100.**

Application notes Is unsuitable for IHC-P.

Target

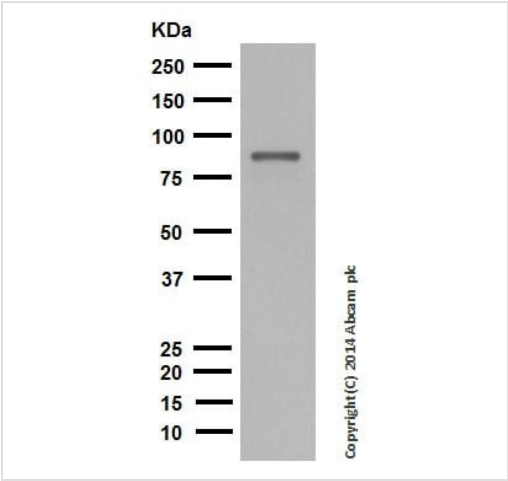
Function Part of the dynein complex of respiratory cilia.

Involvement in disease Defects in DNAI1 are the cause of primary ciliary dyskinesia type 1 (CILD1) [MIM:244400]. CILD1 is an autosomal recessive disorder characterized by axonemal abnormalities of motile cilia. Respiratory infections leading to chronic inflammation and bronchiectasis are recurrent, due to defects in the respiratory cilia; reduced fertility is often observed in male patients due to abnormalities of sperm tails. Half of the patients exhibit situs inversus, due to dysfunction of monocilia at the embryonic node and randomization of left-right body asymmetry. Primary ciliary dyskinesia associated with situs inversus is referred to as Kartagener syndrome.
Defects in DNAI1 are the cause of Kartagener syndrome (KTGS) [MIM:244400]. KTGS is an autosomal recessive disorder characterized by the association of primary ciliary dyskinesia with situs inversus. Clinical features include recurrent respiratory infections, bronchiectasis, infertility, and lateral transposition of the viscera of the thorax and abdomen. The situs inversus is most often total, although it can be partial in some cases (isolated dextrocardia or isolated transposition of abdominal viscera).

Sequence similarities Belongs to the dynein intermediate chain family.
Contains 5 WD repeats.

Cellular localization Cytoplasm > cytoskeleton > cilium axoneme.

Images



Western blot - Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] (ab171964)

Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] (ab171964) at 1/5000 dilution (purified) + Human testis tissue lysate at 20 µg

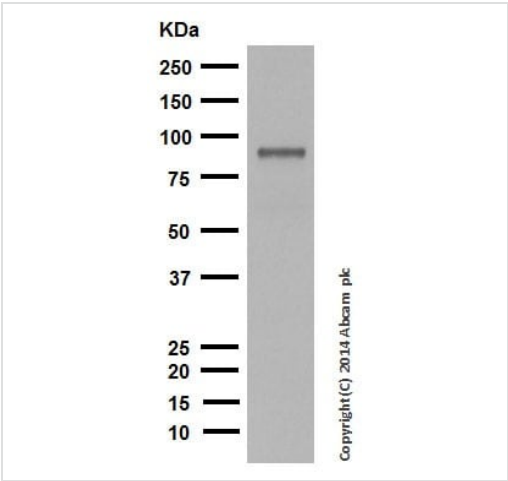
Secondary

HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 79 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



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HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 79 kDa

Observed band size: 79 kDa

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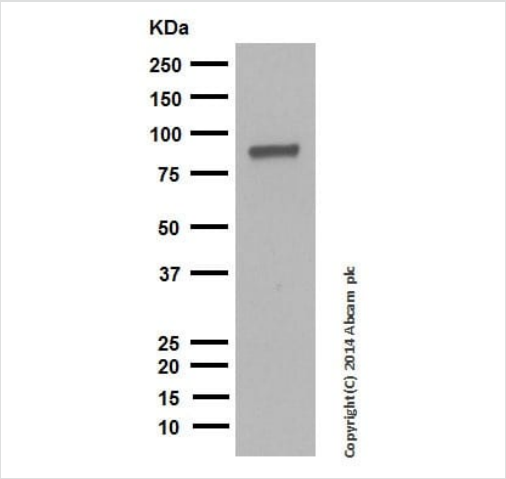
Dilution buffer: 5% NFDM/TBST



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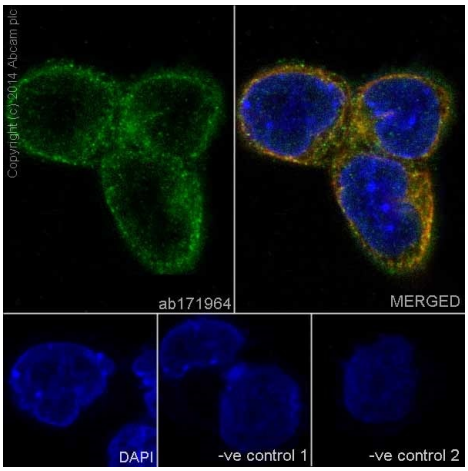
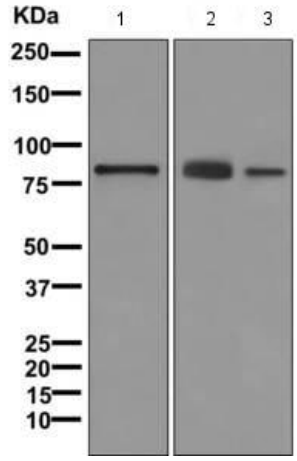


Immunocytochemistry/ Immunofluorescence - Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] (ab171964)

Immunofluorescence staining of F9 cells with purified ab171964 at a working dilution of 1 in 250, counter-stained with DAPI and mouse monoclonal anti-tubulin (**ab7291**, 1/500). The secondary antibody was Alexa Fluor® 488 goat anti rabbit (**ab150077**), used at a dilution of 1 in 500. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom right hand and middle panels - for the negative control, purified ab171964 was used at a dilution of 1/200 followed by an Alexa Fluor® 594 goat anti-mouse antibody (**ab150120**) at a dilution of 1/500.



Western blot - Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] (ab171964)

All lanes : Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] (ab171964) at 1/1000 dilution (unpurified)

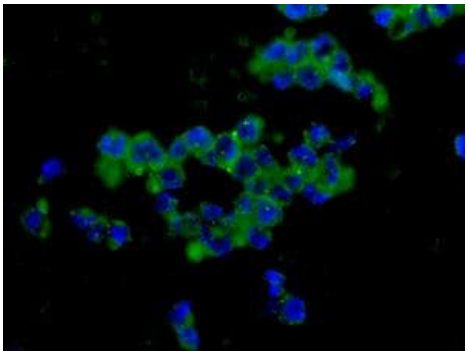
Lane 1 : Human testis tissue lysate
Lane 2 : Rat testis tissue lysate
Lane 3 : Mouse testis tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-rabbit HRP conjugated at 1/2000 dilution

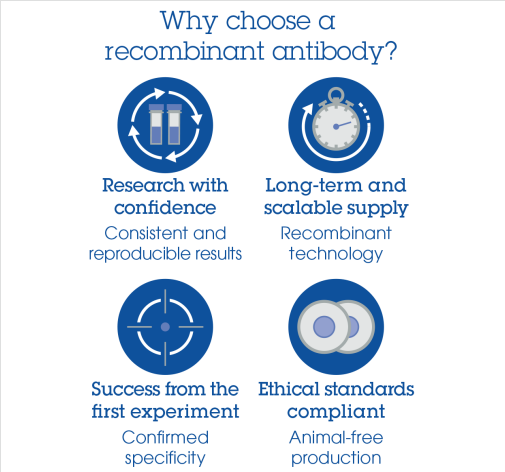
Developed using the ECL technique.

Predicted band size: 79 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Dynein intermediate chain 1/DNAI1 antibody [EPR11244-61] (ab171964)

Immunofluorescence analysis of Jurkat cells, labeling Dynein intermediate chain 1/DNAI1 using unpurified ab171964 at a 1/50 dilution (green) and DAPI nuclear staining (blue).



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