abcam

Product datasheet

Anti-DNAH5 antibody ab122390

1 Image

Overview

Product name Anti-DNAH5 antibody

Description Rabbit polyclonal to DNAH5

Host species Rabbit

Tested applications Suitable for: ℍC-P

Species reactivity Reacts with: Human

Predicted to work with: Horse, Rhesus monkey, Gorilla

Immunogen Recombinant fragment : NFDTLTSSIN ARANALLLTT VTRKKKETEM LGEEARELLS

HFNHQNMDAL LKVTRNTLEA IRKRIHSSHT INFRDSNSAS NMKQNSLP, corresponding to

internal sequence amino acids 921-1008 of Human DNAH5 (Q8TE73)

Run BLAST with EXPASY MRun BLAST with S NCBI

Positive control IHC: Human fallopian tube tissue.

General notesThe Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.20

Preservative: 0.02% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine)

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab122390 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
IHC-P		1/10 - 1/20. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Force generating protein of respiratory cilia. Produces force towards the minus ends of microtubules. Dynein has ATPase activity; the force-producing power stroke is thought to occur on release of ADP. Required for structural and functional integrity of the cilia of ependymal cells lining the brain ventricles.

Involvement in disease

Defects in DNAH5 are the cause of primary ciliary dyskinesia type 3 (CILD3) [MIM:608644]. CILD3 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 DNAH5 are a 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 heavy chain family.

Domain

Dynein heavy chains probably consist of an N-terminal stem (which binds cargo and interacts with other dynein components), and the head or motor domain. The motor contains six tandemly-linked AAA domains in the head, which form a ring. A stalk-like structure (formed by two of the coiled coil domains) protrudes between AAA 4 and AAA 5 and terminates in a microtubule-binding site. A seventh domain may also contribute to this ring; it is not clear whether the N-terminus or the C-terminus forms this extra domain. There are four well-conserved and two non-conserved ATPase sites, one per AAA domain. Probably only one of these (within AAA 1) actually hydrolyzes ATP, the others may serve a regulatory function.

Cellular localization

Cytoplasm > cytoskeleton > cilium axoneme.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-DNAH5 antibody (ab122390)

ab122390 at 1/10 staining DNAH5 in formalin fixed paraffin embedded Human fallopian tube using immunohistochemistry.

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