

# Human DNAL1 antibody

Catalog Number: ATGA0287

## PRODUCT INFORMATION

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**Catalog number**

ATGA0287

**Clone No.**

AT29E4

**Product type**

Monoclonal Antibody

**UnitProt No.**

Q4LDG9

**NCBI Accession No.**

NP\_113615

**Alternative Names**

Dynein light chain 1 axonemal, Dynein light chain 1, axonemal, C14orf168, CILD16

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human DNAL1 (1-190aa) purified from E. coli

**Isotype**

IgG2b kappa

**Purification Note**

By protein-A affinity chromatography

**Application**

ELISA, WB, ICC/IF, FACS

**Usage**

The antibody has been tested by ELISA, Western blot, ICC and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results. Recommended starting dilution is 1:1000.

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

DNAL1, also known as dynein light chain 1 axonemal, is component of the outer dynein arms complex. This complex acts as the molecular motor that provides the force to move cilia in an ATP-dependent manner. DNAL1 is expressed in tissues with motile cilia or flagella and may be involved in the movement of sperm flagella. Homozygous mutations in the DNAL1 gene are associated with primary ciliary dyskinesia 16 (CILD16) which is a disorder characterized by abnormalities of motile cilia.

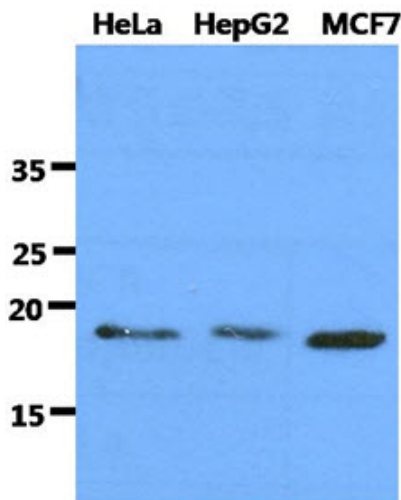
### General References

Mazor. M., et al. (2011) Am J Hum Genet 88: 599-607.

Horvath. J., et al. (2005) Am J Respir Cell Mol Biol 33: 41-47.

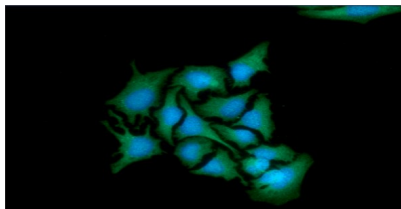
## DATA

### Western blot analysis (WB)

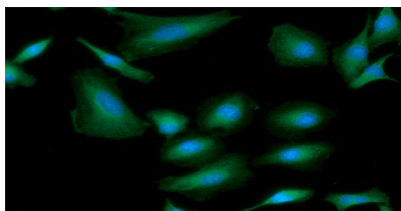


The cell lysates of HeLa, HepG2 and MCF7 (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human DNAL1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of DNAL1 in HeLa cells. The cell was stained with ATGA0287 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

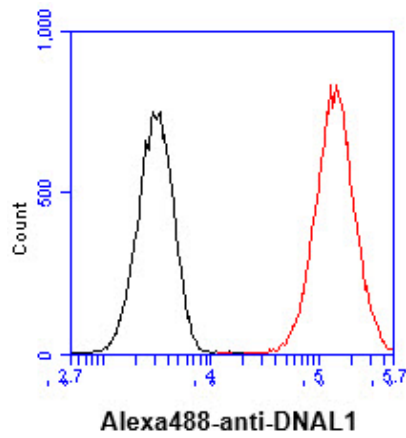


ICC/IF analysis of DNAL1 in A549 cells. The cell was stained with ATGA0287 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

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## Flow cytometry (FACS)



Flow cytometry analysis of DNAL1 in HeLa cell line, staining at 2-5ug for  $1 \times 10^6$  cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).