

## Monoclonal anti-human DNAL1 antibody (clone AT29E4)

Mouse IgG<sub>2b</sub>, κ

Cat. No. IBATGA0287

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

**NCBI Accession No.:** NP\_113615

**Isotype:** Mouse IgG<sub>2b</sub> heavy chain and κ light chain

**Clone:** Anti-human DNAL1 mAb, clone AT29E4, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human DNAL1 protein.

**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.

**Concentration:** 1 mg/ml

**Form:** Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

**Storage:** Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

**Usage:** The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

**Application:** ELISA, WB, Flow cytometry, ICC/IF

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



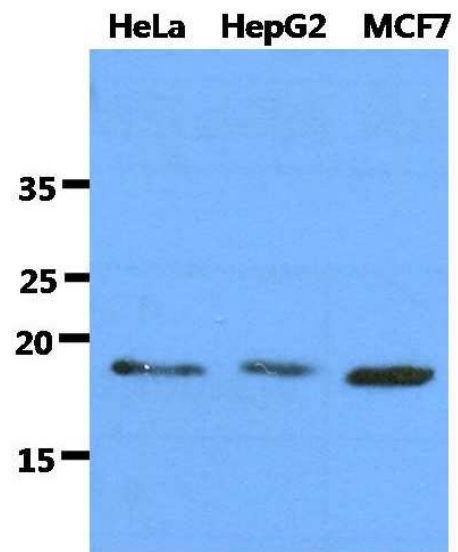
Manufactured for:

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# Product information

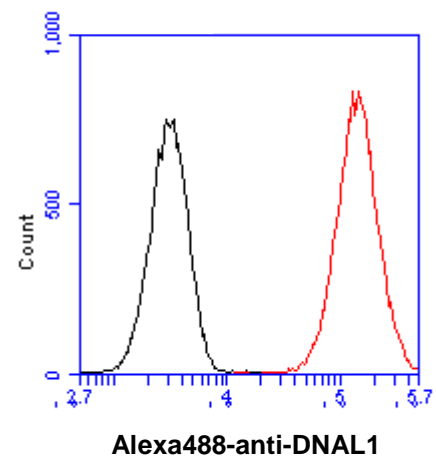
## Western blot analysis

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.



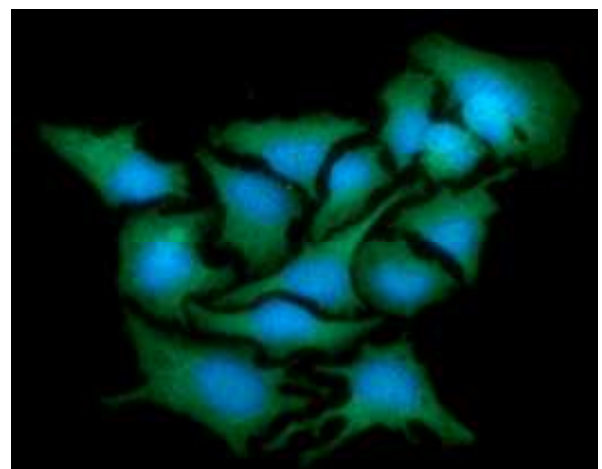
## Flow cytometry

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).



## ICC/IF analysis

ICC/IF analysis of DNAL1 in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human DNAL1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



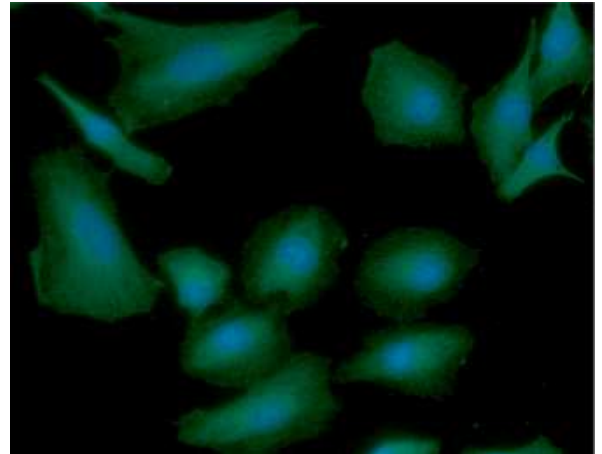
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## ICC/IF analysis

ICC/IF analysis of DNAL1 in A549 cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human DNAL1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



**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

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