

DNAL1 Antibody

DNAL1: Dynein axonemal light chain 1

CATALOG No.:4733

BACKGROUND:

DNAL1 was identified as a potential candidate gene for primary ciliary dyskinesia (PCD), a genetically heterogeneous disorder characterized by chronic infections of the upper and lower airways that often leads to permanent lung damage, randomization of left/right body symmetry, and reduced fertility (1). DNAL1 is reported to be expressed solely in tissues carrying motile cilia for flagella and interacts with DNAH5, a protein that when mutated has been shown to result in PCD (2). It has been suggested that DNAL1 serves a regulatory function for DNAH5 activity in outer dynein arms of sperm flagella, respiratory cilia, and ependymal cilia (1). DNAL1 has also been recently identified as an HIV dependency factor (HDF), suggesting that DNAL1 may be an important drug target in HIV treatment (3). At least two isoforms of DNAL1 are known to exist.

SOURCE:

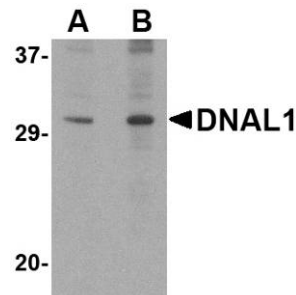
Rabbit polyclonal DNAL1 antibody was raised against a 17 amino acid peptide from near the carboxy terminus of human DNAL1 (GenBank accession no. NP_113615).

APPLICATIONS:

DNAL1 antibody can be used for detection of DNAL1 by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) 3T3 cell lysate can be used as positive control. DNAL1 antibody is human, mouse and rat reactive. **For research use only.**

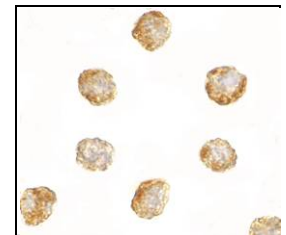
STORAGE:

DNAL1 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of DNAL1 in 3T3 cell lysate with DNAL1 antibody at (A) 1 and (B) 2 µg/ml.

Immunocytochemistry of DNAL1 in 3T3 cells with DNAL1 antibody at 2.5 µg/ml.



RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4733P**.
3T3 Cell Lysate, Catalog No. **1282**.

REFERENCES:

1. Horvath J, Fliegauf M, Olbrich H, et al. Identification and analysis of axonemal dynein light chain 1 in primary ciliary dyskinesia patients. *Am. J. Respir. Cell Mol. Biol.* 2005; 33:41-7.
2. Olbrich H, Haeffner K, Kisbert A, et al. Mutations in DNAH5 cause primary ciliary dyskinesia and randomization of left/right asymmetry. *Nat. Genet.* 2002; 30:143-4.
3. Brass AL, Dykxhoorn DM, Benita Y, et al. Identification of host proteins required for HIV infection through a functional genomic screen. *Science* 2008; 319:921-6. (08-01D)