

# DNAH6 (P-14): sc-241387

## BACKGROUND

Dyneins are multi-subunit, high molecular weight ATPases that interact with microtubules to generate force by converting the chemical energy of ATP into the mechanical energy of movement. Cytoplasmic or axonemal dynein heavy, intermediate, light and light-intermediate chains are all components of minus end-directed motors. Dynein complexes transport cellular cargos toward the central region of the cell. Containing one to three non-identical heavy chains, axonemal dynein motors cause a sliding of microtubules in the axonemes of cilia and flagella in a mechanism necessary for cilia movement and cell propulsion. DNAH6 (dynein, axonemal, heavy chain 6), also known as HL2 or DNAHL1, is a 4,158 amino acid member of the dynein heavy chain protein family. Expressed in testis, brain and trachea, DNAH6 exists as four isoforms produced by alternative splicing events. DNAH6 is a force-generating protein of respiratory cilia.

## REFERENCES

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2. Milisav, I. and Affara, N.A. 1998. A potential human axonemal dynein heavy-chain gene maps to 17q25. *Mamm. Genome* 9: 404-407.
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5. Seetharam, R.N. and Satir, P. 2005. High speed sliding of axonemal microtubules produced by outer arm dynein. *Cell Motil. Cytoskeleton* 60: 96-103.
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## CHROMOSOMAL LOCATION

Genetic locus: DNAH6 (human) mapping to 2p25.3; Dnahc6 (mouse) mapping to 6 C1.

## SOURCE

DNAH6 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DNAH6 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241387 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DNAH6 (P-14) is recommended for detection of DNAH6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other DNAH family members.

DNAH6 (P-14) is also recommended for detection of DNAH6 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for DNAH6 siRNA (m): sc-143081, DNAH6 shRNA Plasmid (m): sc-143081-SH and DNAH6 shRNA (m) Lentiviral Particles: sc-143081-V.

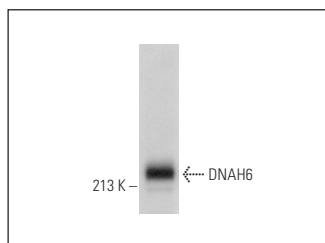
Molecular Weight of DNAH6 isoforms 1/2/3/4: 476/68/47/290 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



DNAH6 (P-14): sc-241387. Western blot analysis of DNAH6 expression in NTERA-2 cl.D1 whole cell lysate.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.