

DNAH14 (N-15): sc-167648

BACKGROUND

Dyneins are multisubunit, 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; the complex transports cellular cargos towards the central region of the cell. Axonemal dynein motors contain one to three non-identical heavy chains and cause a sliding of microtubules in the axonemes of cilia and flagella in a mechanism necessary for cilia to beat and propel the cell. DNAH14 (dynein, axonemal, heavy chain 14), also known as C1orf67 or HL18, is a 3,507 amino acid member of the dynein heavy chain protein family. DNAH14 is one of the force generating protein of respiratory cilia and may be involved in sperm motility through sperm flagellar assembly.

REFERENCES

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- Seetharam, R.N. and Satir, P. 2005. High speed sliding of axonemal microtubules produced by outer arm dynein. *Cell Motil. Cytoskeleton* 60: 96-103.
- Lee, W.L., Kaiser, M.A. and Cooper, J.A. 2005. The offloading model for dynein function: differential function of motor subunits. *J. Cell Biol.* 168: 201-207.

CHROMOSOMAL LOCATION

Genetic locus: DNAH14 (human) mapping to 1q42.12.

SOURCE

DNAH14 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DNAH14 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-167648 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

DNAH14 (N-15) is recommended for detection of DNAH14 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

DNAH14 (N-15) is also recommended for detection of DNAH14 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for DNAH14 siRNA (h): sc-88844, DNAH14 shRNA Plasmid (h): sc-88844-SH and DNAH14 shRNA (h) Lentiviral Particles: sc-88844-V.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.