

# Dynein IC1, axonemal (S-20): sc-32208

## BACKGROUND

Dyneins are high molecular weight ATPases that interact with microtubules to generate force. These proteins are composed of heavy, intermediate and light chains, at least some of which undergo alternative splicing. Axonemal dyneins power eukaryotic cilia and flagella, while cytoplasmic dyneins transport particles and organelles along the microtubules. The carboxy-terminus of Dynein is thought to be essential for microtubule-dependent motility and is highly conserved, while the amino-terminal regions are more variable. Dyneins also play a role in transporting condensed chromosomes during mitosis.

## REFERENCES

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- Tanaka, Y., et al. 1995. Identification and molecular evolution of new Dynein-like protein sequences in rat brain. *J. Cell. Sci.* 108: 1883-1893.
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- Faulkner, N.E., et al. 1998. Localization of motor-related proteins and associated complexes to active, but not inactive, centromeres. *Hum. Mol. Genet.* 7: 671-677.

## CHROMOSOMAL LOCATION

Genetic locus: DNAI1 (human) mapping to 9p21-p13; Dnaic1 (mouse) mapping to 4 A5.

## SOURCE

Dynein IC1, axonemal (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Dynein IC1, axonemal 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-32208 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Dynein IC1, axonemal (S-20) is recommended for detection of axonemal dynein intermediate chain 1 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).

Suitable for use as control antibody for Dynein IC1, axonemal siRNA (h): sc-44689, Dynein IC1, axonemal siRNA (m): sc-44690, Dynein IC1, axonemal shRNA Plasmid (h): sc-44689-SH, Dynein IC1, axonemal shRNA Plasmid (m): sc-44690-SH, Dynein IC1, axonemal shRNA (h) Lentiviral Particles: sc-44689-V and Dynein IC1, axonemal shRNA (m) Lentiviral Particles: sc-44690-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) 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.

## STORAGE

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

## PROTOCOLS

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