

IFT52 (N-16): sc-85602

BACKGROUND

Intraflagellar transport is mediated by a variety of intraflagellar transport proteins (IFTs) that work in tandem to mediate ciliary and flagellar process assembly. Endogenous IFT proteins are most highly expressed within the inner segment, around the basal body, and within the outer segment IFT proteins are localized in discrete particles along the entire length of the axoneme. IFT proteins are divided into two subcomplexes, A and B, which contain at least 6 or 11 subunits, respectively. IFT-A proteins are associated with retrograde transport, whereas IFT-B proteins are thought to be involved in structure because, in their absence, cilia and flagella may be truncated, or completely absent. IFT52, also designated NGD5 or CGI-53, is a core protein of the IFT complex B and is thought to be involved in hedgehog signaling.

REFERENCES

1. Deane, J.A., et al. 2001. Localization of intraflagellar transport protein IFT52 identifies basal body transitional fibers as the docking site for IFT particles. *Curr. Biol.* 11: 1586-1590.
2. Baker, S.A., et al. 2003. IFT20 links kinesin II with a mammalian intraflagellar transport complex that is conserved in motile flagella and sensory cilia. *J. Biol. Chem.* 278: 34211-34218.
3. Tsujikawa, M. and Malicki, J. 2004. Intraflagellar transport genes are essential for differentiation and survival of vertebrate sensory neurons. *Neuron* 42: 703-716.
4. Liu, A., et al. 2005. Mouse intraflagellar transport proteins regulate both the activator and repressor functions of Gli transcription factors. *Development* 132: 3103-3111.

CHROMOSOMAL LOCATION

Genetic locus: IFT52 (human) mapping to 20q13.12; Ift52 (mouse) mapping to 2 H2.

SOURCE

IFT52 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IFT52 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-85602 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.

PROTOCOLS

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

APPLICATIONS

IFT52 (N-16) is recommended for detection of IFT52 of mouse 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 IFT20, IFT88, and IFT140.

IFT52 (N-16) is also recommended for detection of IFT52 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IFT52 siRNA (h): sc-75328, IFT52 siRNA (m): sc-146175, IFT52 shRNA Plasmid (h): sc-75328-SH, IFT52 shRNA Plasmid (m): sc-146175-SH, IFT52 shRNA (h) Lentiviral Particles: sc-75328-V and IFT52 shRNA (m) Lentiviral Particles: sc-146175-V.

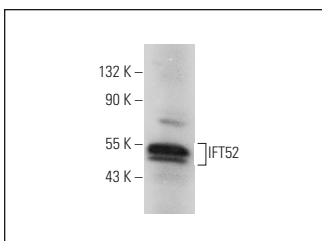
Molecular Weight of IFT52: 50 kDa.

Positive Controls: human kidney extract: sc-363764.

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



IFT52 (N-16): sc-85602. Western blot analysis of IFT52 expression in human kidney tissue extract.

RESEARCH USE

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