

# IFT81 (C-17): sc-107629

## BACKGROUND

IFT81 (intraflagellar transport 81), also known as CDV1 (carnitine deficiency-associated protein expressed in ventricle 1), is a 676 amino acid protein that is present at high levels in testis and is moderately expressed in heart, liver, ovary, pancreas, kidney and skeletal muscle. Existing as three alternatively spliced isoforms, two of which are designated CDV-1 and CDV-1R, IFT81 plays a role in testicular development and spermatogenesis and may also be involved in cardiac hypertrophy caused by carnitine deficiency. The gene encoding IFT81 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

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- Higashi, M., et al, T. 2000. Genomic organization and mapping of mouse CDV (carnitine deficiency-associated gene expressed in ventricle)-1 and its related CDV-1R gene. *Mamm. Genome* 11: 1053-1057.
- Peng, J., et al. 2002. Identification of human CDV-1R and mouse Cdv-1R, two novel proteins with putative signal peptides, especially highly expressed in testis and increased with the male sex maturation. *Mol. Biol. Rep.* 29: 353-362.
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- Lucker, B.F., et al. 2005. Characterization of the intraflagellar transport complex B core: direct interaction of the IFT81 and IFT74/72 subunits. *J. Biol. Chem.* 280: 27688-27696.
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## CHROMOSOMAL LOCATION

Genetic locus: IFT81 (human) mapping to 12q24.11; Ift81 (mouse) mapping to 5 F.

## SOURCE

IFT81 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IFT81 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-107629 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

IFT81 (C-17) is recommended for detection of IFT81 of mouse, rat and 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 isoform IFT81-2.

IFT81 (C-17) is also recommended for detection of IFT81 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for IFT81 siRNA (h): sc-96191, IFT81 siRNA (m): sc-146177, IFT81 shRNA Plasmid (h): sc-96191-SH, IFT81 shRNA Plasmid (m): sc-146177-SH, IFT81 shRNA (h) Lentiviral Particles: sc-96191-V and IFT81 shRNA (m) Lentiviral Particles: sc-146177-V.

Molecular Weight of IFT81: 80 kDa.

Positive Controls: Mouse testis extract: sc-2405.

## 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.

## 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.



Try **IFT81 (A-3): sc-374272** or **IFT81 (B-1): sc-374219**, our highly recommended monoclonal alternatives to IFT81 (C-17).