SANTA CRUZ BIOTECHNOLOGY, INC.

IFT81 (A-3): sc-374272

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. Masuda, M., et al. 1997. A novel gene suppressed in the ventricle of carnitine-deficient juvenile visceral steatosis mice. FEBS Lett. 408: 221-224.
2. Higashi, M., et al. 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.
3. 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.
4. Zhang, K.X., et al. 2005. Expression of Cdv-iR gene in mouse epididymis as revealed by *in situ* hybridization. Arch. Androl. 51: 7-13.
5. 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.

CHROMOSOMAL LOCATION

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

SOURCE

IFT81 (A-3) is a mouse monoclonal antibody raised against amino acids 377-676 mapping at the C-terminus of IFT81 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IFT81 (A-3) is available conjugated to agarose (sc-374272 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374272 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374272 PE), fluorescein (sc-374272 FITC), Alexa Fluor® 488 (sc-374272 AF488), Alexa Fluor® 546 (sc-374272 AF546), Alexa Fluor® 594 (sc-374272 AF594) or Alexa Fluor® 647 (sc-374272 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374272 AF680) or Alexa Fluor® 790 (sc-374272 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IFT81 (A-3) is recommended for detection of IFT81 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

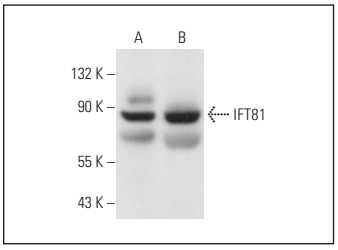
Molecular Weight of IFT81: 80 kDa.

Positive Controls: mouse testis extract: sc-2405 or rat testis extract: sc-2400.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IFT81 (A-3): sc-374272. Western blot analysis of IFT81 expression in mouse testis (**A**) and rat testis (**B**) tissue extracts.

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 for detailed protocols and support products.