

# IFT122 (K-18): sc-102611

## BACKGROUND

IFT122 (intraflagellar transport 122 homolog) is also known as SPG, WDR10p or WDR10 (WD repeat-containing protein 10) and is a 1,241 amino acid protein that is predominantly expressed in testis and pituitary. IFT122 expression occurs in the germ cells of testis and in the somatic granulosa of ovary, suggesting that IFT122 may be involved in the differentiation of cells within the gonads. IFT122 is localized to the cytoplasm and is expressed as two isoforms. IFT122 contains 7 WD repeats at its N-terminus and is a member of the WD repeat protein family. The WD repeat family consists of functionally diverse regulatory proteins in eukaryotes, involved in a variety of cellular processes, including cell cycle progression, signal transduction, apoptosis and gene regulation. Proteins that contain WD repeats are thought to more easily facilitate the formation of heterotrimeric or multiprotein complexes. In addition to its WD repeats, IFT122 contains an AF-2 domain that functions in transcriptional activation and in the recruitment of coregulatory molecules. Mutations in AF-2 domains are thought to abolish the transcriptional activities of proteins.

## REFERENCES

1. Gross, C., et al. 2001. Cloning and characterization of human WDR10, a novel gene located at 3q21 encoding a WD-repeat protein that is highly expressed in pituitary and testis. *DNA Cell Biol.* 20: 41-52.
2. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 606045. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Prüfer, K., et al. 2008. Mutations in the AF-2 region abolish ligand-induced intranuclear immobilization of the liver X receptor  $\alpha$ . *Exp. Cell Res.* 314: 2652-2660.
4. Smith, T.F. 2008. Diversity of WD-repeat proteins. *Subcell. Biochem.* 48: 20-30.
5. Achari, Y., et al. 2009. Distinct roles for AF-1 and -2 of ER- $\alpha$  in regulation of MMP-13 promoter activity. *Biochim. Biophys. Acta* 1792: 211-220.
6. Cortellino, S., et al. 2009. Defective ciliogenesis, embryonic lethality and severe impairment of the Sonic Hedgehog pathway caused by inactivation of the mouse complex A intraflagellar transport gene *Ift122/Wdr10*, partially overlapping with the DNA repair gene *Med1/Mbd4*. *Dev. Biol.* 325: 225-237.

## CHROMOSOMAL LOCATION

Genetic locus: IFT122 (human) mapping to 3q21.3.

## SOURCE

IFT122 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IFT122 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102611 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IFT122 (K-18) is recommended for detection of IFT122 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 IFT family members.

Suitable for use as control antibody for IFT122 siRNA (h): sc-78342, IFT122 shRNA Plasmid (h): sc-78342-SH and IFT122 shRNA (h) Lentiviral Particles: sc-78342-V.

Molecular Weight of IFT122: 140 kDa.

Positive Controls: 721 B whole cell lysate.

## 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.

## RESEARCH USE

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

## PROTOCOLS

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