

IFT140 (K-14): sc-107624

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. IFT140 (intraflagellar transport 140), also known as WDTC2 or gs114, is a 1,462 amino acid protein that contains 9 TPR (tetratricopeptide repeat) repeats and 5 WD repeats, suggesting a role in regulatory events throughout the cell. The gene encoding IFT140 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

1. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. *FEBS Lett.* 307: 131-134.
2. Neer, E.J., et al. 1994. The ancient regulatory-protein family of WD-repeat proteins. *Nature* 371: 297-300.
3. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.
4. Tsujikawa, M. and Malicki, J. 2004. Intraflagellar transport genes are essential for differentiation and survival of vertebrate sensory neurons. *Neuron* 42: 703-716.
5. Insinna, C. and Besharse, J.C. 2008. Intraflagellar transport and the sensory outer segment of vertebrate photoreceptors. *Dev. Dyn.* 237: 1982-1992.
6. Luby-Phelps, K., et al. 2008. Spatial distribution of intraflagellar transport proteins in vertebrate photoreceptors. *Vision Res.* 48: 413-423.

CHROMOSOMAL LOCATION

Genetic locus: IFT140 (human) mapping to 16p13.3; Ift140 (mouse) mapping to 17 A3.3.

SOURCE

IFT140 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IFT140 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-107624 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

IFT140 (K-14) is recommended for detection of IFT140 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).

IFT140 (K-14) is also recommended for detection of IFT140 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for IFT140 siRNA (h): sc-93458, IFT140 siRNA (m): sc-146172, IFT140 shRNA Plasmid (h): sc-93458-SH, IFT140 shRNA Plasmid (m): sc-146172-SH, IFT140 shRNA (h) Lentiviral Particles: sc-93458-V and IFT140 shRNA (m) Lentiviral Particles: sc-146172-V.

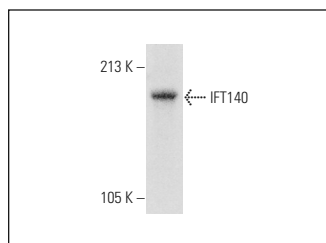
Molecular Weight of IFT140: 165 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357.

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



IFT140 (K-14): sc-107624. Western blot analysis of IFT140 expression in ARPE-19 whole cell lysate.

RESEARCH USE

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