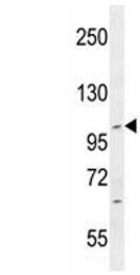
IFT88 Antibody (F41236)

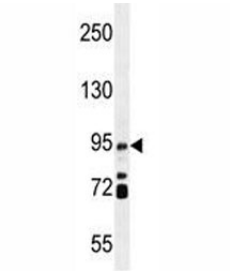
Catalog No.	Formulation	Size
F41236-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F41236-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

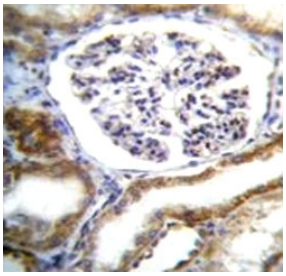
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q13099
RRID	AB_3095040
Applications	Western blot: 1:1000 IHC (Paraffin): 1:10-1:50 Immunofluorescence: 1:10-1:50
Limitations	This IFT88 antibody is available for research use only.



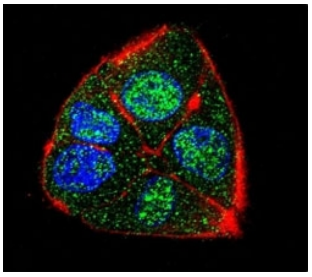
IFT88 antibody western blot analysis in CEM lysate. Predicted molecular weight ~94 kDa.



IFT88 antibody western blot analysis in mouse testis tissue lysate. Predicted molecular weight ~94 kDa.



IFT88 antibody immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue.



Confocal immunofluorescent analysis of IFT88 antibody with HepG2 cells followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). Actin filaments have been labeled with Alexa Fluor555 Phalloidin (red). DAPI was used as a nuclear counterstain (blue).

Description

IFT88 Antibody recognizes Intraflagellar Transport Protein 88, a highly conserved component of the intraflagellar transport machinery that is essential for the assembly, maintenance, and function of primary cilia and flagella. Also known as TG737, Polaris, and TTC10, IFT88 is a core member of the IFT-B complex, which mediates anterograde transport of proteins and structural components along the ciliary axoneme. Through interactions with kinesin motor proteins and other IFT components, IFT88 regulates cilium formation and supports the trafficking of signaling molecules required for normal cellular communication. Because primary cilia function as sensory organelles, IFT88 plays a critical role in coordinating diverse developmental and homeostatic processes.

IFT88 is widely expressed in ciliated tissues and is required for the proper function of signaling pathways including Hedgehog, Wnt, platelet derived growth factor, and transforming growth factor beta pathways. Primary cilia act as hubs for signal transduction, and disruption of IFT88 mediated transport can impair cell proliferation, differentiation, and tissue patterning. IFT88 is particularly important during embryonic development, where it contributes to left right asymmetry, neural tube formation, and organogenesis. In adult tissues, IFT88 participates in the maintenance of epithelial integrity, kidney function, and sensory systems.

Mutations or altered expression of IFT88 have been linked to a group of disorders collectively known as ciliopathies. Defects in IFT88 are associated with polycystic kidney disease, retinal degeneration, skeletal abnormalities, and developmental syndromes characterized by impaired ciliary function. Loss of primary cilia has also been implicated in cancer progression, fibrosis, and chronic inflammatory diseases. Consequently, IFT88 has emerged as an important marker for studies of ciliary biology and diseases involving disrupted intracellular signaling.

Beyond its role in cilia formation, IFT88 contributes to cell cycle regulation, autophagy, and maintenance of tissue architecture. Interactions between IFT88 and microtubule associated proteins support cytoskeletal organization and cellular polarity. Emerging evidence suggests that IFT88 influences stem cell differentiation, mechanosensing, and cellular responses to environmental stimuli, highlighting its importance in diverse physiological processes.

IFT88 Antibody is useful for investigations of primary cilia, intraflagellar transport, developmental biology, and ciliopathies. Detection of endogenous IFT88 provides a valuable tool for studies of cell signaling, tissue homeostasis, and diseases associated with defective ciliary assembly and function.

Explore our Cell Biology Antibodies page to discover IFT88 antibodies and other markers involved in primary cilia formation, microtubule dynamics, and intracellular trafficking.

Application Notes

Titration of the IFT88 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 791-820 from the human protein was used as the immunogen for this IFT88 antibody.

Storage

Aliquot the IFT88 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Copyright © NSJ Bioreagents. All rights reserved.