

# Whirlin (D-20): sc-49785

## BACKGROUND

Whirlin is a cytoplasmic PDZ domain-containing protein that plays a role in elongation and maintenance of stereocilia, mechanosensory organelles located in hair cells of the inner ear. Whirlin co-localizes with actin filaments and is primarily detected in cochlear hair cells. It is connected to the dynamic Usher protein interactome and has a pleiotropic function in both the retina and the inner ear. Myosin XVa is a motor protein that associates with the second and third PDZ domain of Whirlin through its C-terminal PDZ-ligand. Myosin XVa then delivers Whirlin to the tips of stereocilia, which are subsequently elongated. p55 also interacts with Whirlin, and mutations in DFNB31, the Whirlin gene, lead to an early ablation of p55 labeling of stereocilia, which may cause recessive hearing loss in rats and humans.

## CHROMOSOMAL LOCATION

Genetic locus: DFNB31 (human) mapping to 9q32; Whrn (mouse) mapping to 4 C1.

## SOURCE

Whirlin (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Whirlin 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-49785 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.

## APPLICATIONS

Whirlin (D-20) is recommended for detection of all isoforms of Whirlin of mouse, rat 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).

Whirlin (D-20) is also recommended for detection of all isoforms of Whirlin in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Whirlin siRNA (h): sc-61800, Whirlin siRNA (m): sc-61801, Whirlin shRNA Plasmid (h): sc-61800-SH, Whirlin shRNA Plasmid (m): sc-61801-SH, Whirlin shRNA (h) Lentiviral Particles: sc-61800-V and Whirlin shRNA (m) Lentiviral Particles: sc-61801-V.

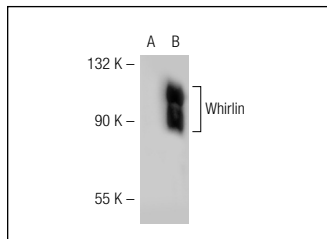
Molecular Weight of Whirlin: 97 kDa.

Positive Controls: Whirlin (h): 293T Lysate: sc-112679 or mouse cerebellum extract: sc-2403.

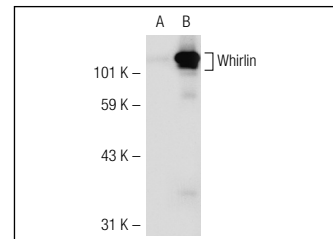
## RECOMMENDED SECONDARY REAGENTS

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



Whirlin (D-20): sc-49785. Western blot analysis of Whirlin expression in non-transfected: sc-117752 (A) and human Whirlin transfected: sc-112679 (B) 293T whole cell lysates.



Whirlin (D-20): sc-49785. Western blot analysis of Whirlin expression in non-transfected: sc-117752 (A) and human Whirlin transfected: sc-112818 (B) 293T whole cell lysates.

## 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.



Try **Whirlin (G-8): sc-365250** or **Whirlin (A-12): sc-271508**, our highly recommended monoclonal alternatives to Whirlin (D-20).