

# Usherin (S-19): sc-49771

## BACKGROUND

Usherin is a membrane glycoprotein mainly expressed in all capillary and structural basement membranes of the retina and inner ear. It is also found in the spleen, oviduct, epididymis, testis and intestines. Usherin is crucial for inner ear and retina development and also also functions to maintain homeostasis in many other organs. Fibronectin interacts with the LE domain of Usherin in retinal basement membranes and Collagen IV stabilizes Usherin in testicular basement membranes. Mutations in Usherin have been associated with Usher syndrome type IIa, characterized by moderate to severe congenital sensorineural hearing loss with retinitis pigmentosa. These symptoms are caused by the disruption of hair bundle links—mediated adhesion forces that are crucial for the correct organization of growing hair bundles.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: USH2A (human) mapping to 1q41.

## SOURCE

Usherin (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Usherin 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-49771 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Usherin (S-19) is recommended for detection of Usherin 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).

Suitable for use as control antibody for Usherin siRNA (h): sc-61762, Usherin shRNA Plasmid (h): sc-61762-SH and Usherin shRNA (h) Lentiviral Particles: sc-61762-V.

Molecular Weight of Usherin: 171 kDa.

## 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.


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Try **Usherin (G-6): sc-515555**, our highly recommended monoclonal alternative to Usherin (S-19).