

PCDH15 (N-13): sc-107052

BACKGROUND

Protocadherins are a large family of cadherin-like cell adhesion proteins that are involved in the establishment and maintenance of neuronal connections in the brain. There are three protocadherin gene clusters, designated α , β and γ , all of which contain multiple tandemly arranged genes. PCDH15 (protocadherin 15), also known as USH1F or DFNB23, is a 1,955 amino acid single-pass type I membrane protein that contains 11 cadherin domains and exists as multiple alternatively spliced isoforms. Expressed in testis, brain, lung, kidney and spleen, PCDH15 functions as a calcium-dependent cell-adhesion protein that is crucial for the maintenance of normal cochlear and retinal function. Defects in the gene encoding PCDH15 are associated with Usher syndrome type 1F (USH1F), Usher syndrome type 1D/F (USH1DF) and non-syndromic sensorineural deafness autosomal recessive type 23 (DFNB23), all of which are associated with deafness. Multiple isoforms of PCDH15 exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: PCDH15 (human) mapping to 10q21.1; Pcdh15 (mouse) mapping to 10 B5.3.

SOURCE

PCDH15 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of PCDH15 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-107052 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCDH15 (N-13) is recommended for detection of PCDH15 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with isoform PCDH15-2; non cross-reactive with other PCDH family members.

PCDH15 (N-13) is also recommended for detection of PCDH15 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PCDH15 siRNA (h): sc-90494, Pcdh15 siRNA (m): sc-152056, PCDH15 shRNA Plasmid (h): sc-90494-SH, Pcdh15 shRNA Plasmid (m): sc-152056-SH, PCDH15 shRNA (h) Lentiviral Particles: sc-90494-V and Pcdh15 shRNA (m) Lentiviral Particles: sc-152056-V.

Molecular Weight (predicted) of PCDH15 isoforms: 216/92/107 kDa.

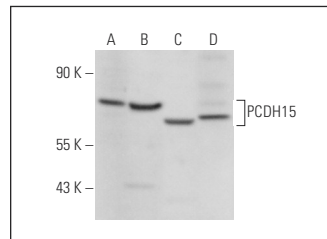
Molecular Weight (observed) of PCDH15: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

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



PCDH15 (N-13): sc-107052. Western blot analysis of PCDH15 expression in HeLa (A), Jurkat (B), NTERA-2 cl.D1 (C) and K-562 (D) whole cell lysates.

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 or our catalog for detailed protocols and support products.



Try **PCDH15 (H-3): sc-377235**, our highly recommended monoclonal alternative to PCDH15 (N-13).