SANTA CRUZ BIOTECHNOLOGY, INC.

connexin 29 (N-15): sc-66350

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The Power to Question

BACKGROUND

Connexin 29 is a 258 amino acid protein encoded by the mouse gene Gje1. Connexin 29 belongs to the connexin family and is a member of the ε-type subfamily. Connexin 29 is a membrane bound, multi-pass protein also known as gap junction ε-1 protein. A connexon, consisting of connexin hexamers, is a membrane-bound structure that is integral in the formation of a gap junction. One gap junction consists of a cluster of closely packed pairs of transmembrane channels, the connexons, through which materials of low molecular weight diffuse from one cell to a neighboring cell. Connexin 29 expression is restricted to the central nervous system and is present in brain, spinal cord and sciatic nerve samples. It has been suggested that connexin 29, in the mature CNS, contributes minimally to gap junctional intercellular communication in oligodendrocyte cell bodies. Rather, connexin 29 is targeted to myelin, where it, along with connexin 32, may contribute to connexin-mediated communication between adjacent layers of uncompacted myelin.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GJE1 (human) mapping to 7q22.1; Gje1 (mouse) mapping to 5 G2.

SOURCE

connexin 29 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of connexin 29 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-66350 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

connexin 29 (N-15) is recommended for detection of connexin 29 of human and, to a lesser extent, mouse and rat 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).

Suitable for use as control antibody for connexin 29 siRNA (h): sc-62136, connexin 29 siRNA (m): sc-62137, connexin 29 shRNA Plasmid (h): sc-62136-SH, connexin 29 shRNA Plasmid (m): sc-62137-SH, connexin 29 shRNA (h) Lentiviral Particles: sc-62136-V and connexin 29 shRNA (m) Lentiviral Particles: sc-62137-V.

Molecular Weight (predicted) of connexin 29: 31 kDa.

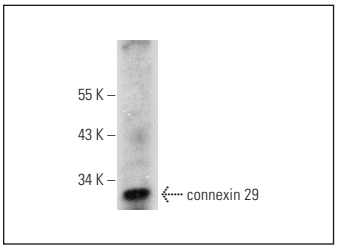
Molecular Weight (observed) of connexin 29: 44 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or SH-SY5Y cell lysate: sc-3812.

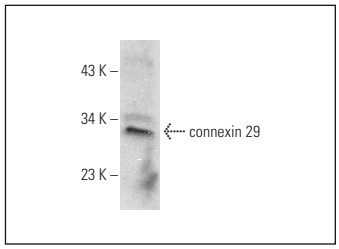
RECOMMENDED SECONDARY REAGENTS

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



connexin 29 (N-15): sc-66350. Western blot analysis of connexin 29 expression in mouse spinal cord tissue extract.



connexin 29 (N-15): sc-66350. Western blot analysis of connexin 29 expression in SH-SY5Y whole cell lysate.

RESEARCH USE

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