

connexin 29 (H-86): sc-68376

BACKGROUND

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 trans-membrane 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 uncompact myelin.

REFERENCES

- Altevogt, B.M., et al. 2002. Connexin 29 is uniquely distributed within myelinating glial cells of the central and peripheral nervous systems. *J. Neurosci.* 22: 6458-6470.
- Nagy, J.I., et al. 2003. connexin 29 and connexin 32 at oligodendrocyte and astrocyte gap junctions and in myelin of the mouse central nervous system. *J. Comp. Neurol.* 464: 356-370.
- Li, X., et al. 2004. Connexin 47, connexin 29 and connexin 32 coexpression in oligodendrocytes and Cx47 association with zonula occludens-1 (ZO-1) in mouse brain. *Neuroscience* 126: 611-630.
- Kleopa, K.A., et al. 2004. Unique distributions of the gap junction proteins connexin 29, connexin 32, and connexin 47 in oligodendrocytes. *Glia* 47: 346-357.
- Yang, J.J., et al. 2005. Expression patterns of connexin 29 (Gje1) in mouse and rat cochlea. *Biochem. Biophys. Res. Commun.* 338: 723-728.

CHROMOSOMAL LOCATION

Genetic locus: GJE3 (human) mapping to 7q22.1.

SOURCE

connexin 29 (H-86) is a rabbit polyclonal antibody raised against amino acids 194-279 mapping at the C-terminus of connexin 29 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.

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.

APPLICATIONS

connexin 29 (H-86) is recommended for detection of connexin 29 of 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).

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

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

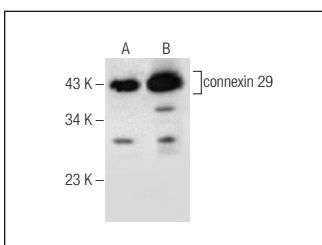
Molecular Weight (observed) of connexin 29: 44 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, AML-193 whole cell lysate: sc-364182 or C32 whole cell lysate: sc-2205.

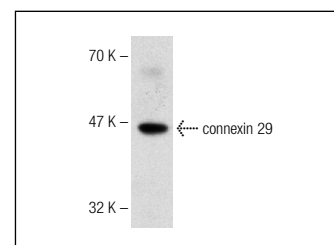
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



connexin 29 (H-86): sc-68376. Western blot analysis of connexin 29 expression in AML-193 (A) and C32 (B) whole cell lysates.



connexin 29 (H-86): sc-68376. Western blot analysis of connexin 29 expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

- Karteris, E., et al. 2006. Progesterone signaling in human myometrium through two novel membrane G protein-coupled receptors: potential role in functional progesterone withdrawal at term. *Mol. Endocrinol.* 20: 1519-1534.
- Sakaguchi, M., et al. 2009. Overexpression of REIC/Dkk-3 in normal fibroblasts suppresses tumor growth via induction of IL-7. *J. Biol. Chem.* 284: 14236-14244.