SANTA CRUZ BIOTECHNOLOGY, INC.

connexin 32 (C-20): sc-7258

BACKGROUND

The connexin family of proteins form hexameric complexes called "connexons" that facilitate movement of low molecular weight proteins between cells via gap junctions. Connexin proteins share a common topology of four transmembrane α-helical domains, two extracellular loops, a cytoplasmic loop and cytoplasmic N- and C-termini. Many of the key functional differences arise from specific amino-acid substitutions in the most highly conserved domains, the transmembrane and extracellular regions. Each of the approximately 20 connexin isoforms produces channels with distinct permeabilities and electrical and chemical sensitivities; therefore, one connexin usually cannot fully substitute for another. Consequently, a wide variety of malignant phenotypes associate with decreased connexin expression and gap junction communication, dependent on the particular connexin that is affected. For instance, mutations in connexin 32 result in Charcot-Marie-Tooth disease, a demyelinating disease of the peripheral nervous system.

CHROMOSOMAL LOCATION

Genetic locus: GJB1 (human) mapping to Xq13.1; Gjb1 (mouse) mapping to X D.

SOURCE

connexin 32 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of connexin 32 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-7258 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

connexin 32 (C-20) is recommended for detection of connexin 32 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).

connexin 32 (C-20) is also recommended for detection of connexin 32 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for connexin 32 siRNA (h): sc-43076, connexin 32 siRNA (m): sc-43077, connexin 32 shRNA Plasmid (h): sc-43076-SH, connexin 32 shRNA Plasmid (m): sc-43077-SH, connexin 32 shRNA (h) Lentiviral Particles: sc-43076-V and connexin 32 shRNA (m) Lentiviral Particles: sc-43077-V.

Molecular Weight of connexin 32: 32 kDa.

Positive Controls: mouse pancreas extract: sc-364244.

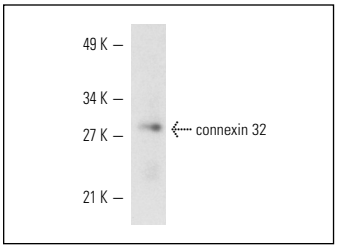
RESEARCH USE

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

STORAGE

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

DATA



connexin 32 (C-20): sc-7258. Western blot analysis of connexin 32 expression in mouse pancreas tissue extract.

SELECT PRODUCT CITATIONS

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4. Collignon, F., et al. 2006. Altered expression of connexin subtypes in mesial temporal lobe epilepsy in humans. J. Neurosurg. 105: 77-87.
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6. Ramos, A.T., et al. 2009. Remyelination in experimentally demyelinated connexin 32 knockout mice. Arq. Neuropsiquiatr. 67: 488-493.
7. Kanczuga-Koda, L., et al. 2010. Gradual loss of functional gap junction within progression of colorectal cancer—a shift from membranous CX32 and CX43 expression to cytoplasmic pattern during colorectal carcinogenesis. In Vivo 24: 101-107.
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