SANTA CRUZ BIOTECHNOLOGY, INC.

connexin 50 (H-65): sc-50432

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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, deletion of the gene encoding connexin 50, normally expressed in the lens, produces cataracts, though not as severe as with deletion of connexin 46.

CHROMOSOMAL LOCATION

Genetic locus: GJA8 (human) mapping to 1q21.2; Gja8 (mouse) mapping to 3 F2.1.

SOURCE

connexin 50 (H-65) is a rabbit polyclonal antibody raised against amino acids 228-292 mapping within a cytoplasmic domain of connexin 50 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.

RESEARCH USE

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

APPLICATIONS

connexin 50 (H-65) is recommended for detection of connexin 50 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 50 (H-65) is also recommended for detection of connexin 50 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for connexin 50 siRNA (h): sc-43083, connexin 50 siRNA (m): sc-43084, connexin 50 shRNA Plasmid (h): sc-43083-SH, connexin 50 shRNA Plasmid (m): sc-43084-SH, connexin 50 shRNA (h) Lentiviral Particles: sc-43083-V and connexin 50 shRNA (m) Lentiviral Particles: sc-43084-V.

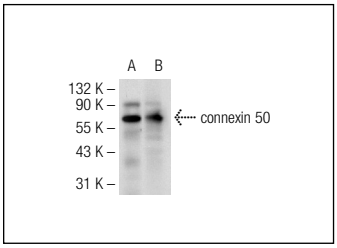
Molecular Weight of connexin 50: 70 kDa.

Positive Controls: rat eye extract: sc-3644805 or mouse eye extract: sc-364241.

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 50 (H-65): sc-50432. Western blot analysis of connexin 50 expression in mouse eye (**A**) and rat eye (**B**) tissue extracts.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.