

connexin 62 (E-14): sc-167532

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 between connexins arise from specific amino-acid substitutions in the most highly conserved domains: the transmembrane and extracellular regions. Connexin 62, also known as CX62 or gap junction α -10 protein, is a 543 amino acid multi-pass membrane protein that belongs to the connexin family and α -type (group II) subfamily. Existing as a component of hexameric connexin complexes, connexin 62 is suggested to play a role in the regulation of horizontal cell patterning, and is expressed in heart and skeletal muscle, where it localizes to the cell membrane and cell junction.

REFERENCES

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3. Söhl, G. and Willecke, K. 2003. An update on connexin genes and their nomenclature in mouse and man. *Cell Commun. Adhes.* 10: 173-180.
4. Delmar, M. 2003. Gap junction remodeling in the failing heart: different connexins—different message? *J. Cardiovasc. Electrophysiol.* 14: 1213-1214.
5. Miquerol, L., et al. 2003. Gap junctional connexins in the developing mouse cardiac conduction system. *Novartis Found. Symp.* 250: 80-98; discussion 98.
6. Cruciani, V. and Mikalsen, S.O. 2005. The connexin gene family in mammals. *Biol. Chem.* 386: 325-332.
7. Li, J., et al. 2005. Cardiac-specific loss of N-cadherin leads to alteration in connexins with conduction slowing and arrhythmogenesis. *Circ. Res.* 97: 474-481.
8. Decrock, E., et al. 2009. Connexin-related signaling in cell death: to live or let die? *Cell Death Differ.* 16: 524-536.

CHROMOSOMAL LOCATION

Genetic locus: GJA10 (human) mapping to 6q15; Gja10 (mouse) mapping to 4 A5.

SOURCE

connexin 62 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of connexin 62 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 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-167532 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

connexin 62 (E-14) is recommended for detection of connexin 62 of human origin, connexin 57 of mouse origin and the corresponding rat homolog 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 other connexin family members.

Suitable for use as control antibody for connexin 62 siRNA (h): sc-95559, connexin 57 siRNA (m): sc-142500, connexin 62 shRNA Plasmid (h): sc-95559-SH, connexin 57 shRNA Plasmid (m): sc-142500-SH, connexin 62 shRNA (h) Lentiviral Particles: sc-95559-V and connexin 57 shRNA (m) Lentiviral Particles: sc-142500-V.

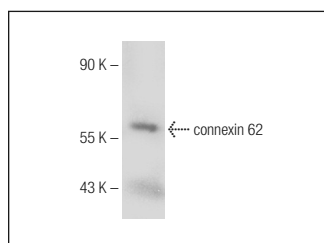
Molecular Weight of connexin 62: 62 kDa.

Positive Controls: A-10 cell lysate: sc-3806 or rat skeletal muscle tissue extract.

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 62 (E-14): sc-167532. Western blot analysis of connexin 62 expression in rat skeletal muscle tissue extract.

RESEARCH USE

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