

# connexin 31.1 (H-43): sc-134610

## 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  $\alpha$ -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. Connexin 31.1, Cx31.1 or Gap junction  $\beta$ -5 protein, is a 271 amino acid protein that is predominantly expressed in skin with lower expression in testis. Expression of connexin 31.1 is also required for normal placental development in mice. Down-regulation of the connexin 31.1 gene correlates with head and neck squamous cell carcinomas (HNSCC) and therefore it may be a potential therapeutic target.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: GJB5 (human) mapping to 1p34.3.

## SOURCE

connexin 31.1 (H-43) is a rabbit polyclonal antibody raised against amino acids 128-170 mapping within an extracellular domain of connexin 31.1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

connexin 31.1 (H-43) is recommended for detection of connexin 31.1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

connexin 31.1 (H-43) is also recommended for detection of connexin 31.1 in additional species, including equine and porcine.

Suitable for use as control antibody for connexin 31.1 siRNA (h): sc-88186, connexin 31.1 shRNA Plasmid (h): sc-88186-SH and connexin 31.1 shRNA (h) Lentiviral Particles: sc-88186-V.

Molecular Weight of connexin 31.1: 31 kDa.

## 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.