

# connexin 31.1 (G-13): sc-162712

## 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 (mouse) mapping to 4 D2.2.

## SOURCE

connexin 31.1 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of connexin 31.1 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-162712 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

connexin 31.1 (G-13) is recommended for detection of connexin 31.1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 31.1 siRNA (m): sc-142494, connexin 31.1 shRNA Plasmid (m): sc-142494-SH and connexin 31.1 shRNA (m) Lentiviral Particles: sc-142494-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 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) 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.

## 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.



Try **connexin 31.1 (H-9): sc-515690**, our highly recommended monoclonal alternative to connexin 31.1 (G-13).