**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 30, also known as GJB6 (gap junction β 6), ED2, EDH, HED or DFNA3, is a 261 amino acid multi-pass membrane protein that localizes to the cell junction and belongs to the connexin family. Functioning as a hexamer with other connexin proteins, connexin 30 facilitates the diffusion of low molecular weight materials from one cell to another. Defects in the gene encoding connexin 30 are the cause of ectodermal dysplasia type 2 (ED2) and nonsyndromic sensorineural deafness autosomal dominant type 3 (DFNA3), the former of which is characterized by abnormal development of ectodermal structures (such as skin and nails).

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GJB6 (human) mapping to 13q12.11; Gjb6 (mouse) mapping to 14 C3.

**SOURCE**

connexin 30 (G-2) is a mouse monoclonal antibody raised against amino acids 215-261 mapping at the C-terminus of connexin 30 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₂a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. connexin 30 (G-2) is available conjugated to agarose (sc-514847 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514847 HRP), 200 µg/ml, for WB, (HICP) and ELISA; to either phycocerythrin (sc-514847 PE), fluorescein (sc-514847 FITC), Alexa Fluor® 488 (sc-514847 AF488), Alexa Fluor® 546 (sc-514847 AF546), Alexa Fluor® 594 (sc-514847 AF594) or Alexa Fluor® 647 (sc-514847 AF647), 200 µg/ml; for WB (RGB), IF, (HICP) and FCM; and to either Alexa Fluor® 680 (sc-514847 AF680) or Alexa Fluor® 790 (sc-514847 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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

**APPLICATIONS**

connexin 30 (G-2) is recommended for detection of connexin 30 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for connexin 30 siRNA (h): sc-43074, connexin 30 siRNA (m): sc-43075, connexin 30 shRNA Plasmid (h): sc-43074-SH, connexin 30 shRNA Plasmid (m): sc-43075-SH, connexin 30 shRNA (h) Lentiviral Particles: sc-43074-V and connexin 30 shRNA (m) Lentiviral Particles: sc-43075-V.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 µl agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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