

CGNL1 (H-188): sc-134624

BACKGROUND

Diffusion of solutes is prevented across certain barriers by the formation of tight junction seals. Occludin and Cingulin interact with other proteins to direct the formation and regulation of tight junctions. Cingulin, a protein component of the submembrane plaque of tight junctions (TJ), contains globular and coiled-coil domains and interacts *in vitro* with several TJ and cytoskeletal proteins, including the PDZ protein ZO-1. CGNL1 (cingulin-like 1), also known as JACOP (junction-associated coiled-coil protein), is a 1,302 amino acid tight junction protein belonging to the Cingulin family. Expressed in smooth muscle, spleen, testis, fetal brain, amygdala, corpus callosum, cerebellum, thalamus and subthalamic nucleus of adult brain. CGNL1 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 15q21.3. CGNL1 may participate in anchoring the apical junctional complex, primarily tight junctions, to actin-based cytoskeletons. Mutations in the gene encoding CGNL1 is the cause of aromatase excess syndrome, which is characterized by an estrogen excess due to an increased aromatase activity.

REFERENCES

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4. Bordin, M., et al. 2004. Histone deacetylase inhibitors up-regulate the expression of tight junction proteins. Mol. Cancer Res. 2: 692-701.
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6. Umeda, K., et al. 2004. Establishment and characterization of cultured epithelial cells lacking expression of ZO-1. J. Biol. Chem. 279: 44785-44794.
7. Ohnishi, H., et al. 2004. JACOP, a novel plaque protein localizing at the apical junctional complex with sequence similarity to cingulin. J. Biol. Chem. 279: 46014-46022.
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CHROMOSOMAL LOCATION

Genetic locus: CGNL1 (human) mapping to 15q21.3.

SOURCE

CGNL1 (H-188) is a rabbit polyclonal antibody raised against amino acids 770-957 mapping within an internal region of CGNL1 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.

APPLICATIONS

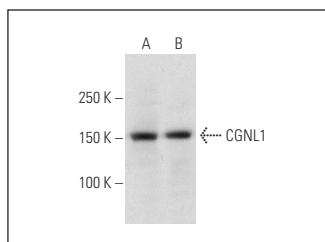
CGNL1 (H-188) is recommended for detection of CGNL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CGNL1 siRNA (h): sc-90135, CGNL1 siRNA (m): sc-142307, CGNL1 shRNA Plasmid (h): sc-90135-SH, CGNL1 shRNA Plasmid (m): sc-142307-SH, CGNL1 shRNA (h) Lentiviral Particles: sc-90135-V and CGNL1 shRNA (m) Lentiviral Particles: sc-142307-V.

Molecular Weight of CGNL1: 149 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181 or TT whole cell lysate: sc-364195.

DATA



CGNL1 (H-188): sc-134624. Western blot analysis of CGNL1 expression in TT (A) and NTERA-2 cl.D1 (B) whole cell lysates.

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 or our catalog for detailed protocols and support products.

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Try **CGNL1 (E-6): sc-377525**, our highly recommended monoclonal alternative to CGNL1 (H-188).