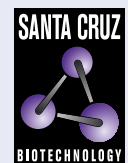


CGNL1 (E-6): sc-377525



The Power to Question

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

1. D'Atri, F., et al. 2001. Cingulin interacts with F-Actin *in vitro*. FEBS Lett. 507: 21-24.
2. D'Atri, F., et al. 2002. Evidence for a functional interaction between Cingulin and ZO-1 in cultured cells. J. Biol. Chem. 277: 27757-27764.

CHROMOSOMAL LOCATION

Genetic locus: CGNL1 (human) mapping to 15q21.3; Cgn1 (mouse) mapping to 9 D.

SOURCE

CGNL1 (E-6) is a mouse monoclonal antibody raised against amino acids 770-957 mapping within an internal region of CGNL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CGNL1 (E-6) is available conjugated to agarose (sc-377525 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377525 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377525 PE), fluorescein (sc-377525 FITC), Alexa Fluor® 488 (sc-377525 AF488), Alexa Fluor® 546 (sc-377525 AF546), Alexa Fluor® 594 (sc-377525 AF594) or Alexa Fluor® 647 (sc-377525 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377525 AF680) or Alexa Fluor® 790 (sc-377525 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

CGNL1 (E-6) is recommended for detection of CGNL1 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 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.

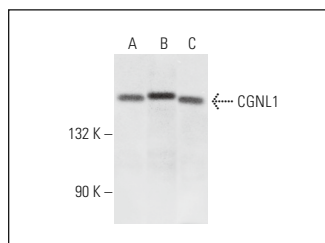
Molecular Weight of CGNL1: 149 kDa.

Positive Controls: human kidney extract: sc-363764, F9 cell lysate: sc-2245 or TT whole cell lysate: sc-364195.

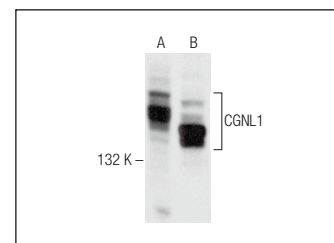
RECOMMENDED SUPPORT REAGENTS

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 ml 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



CGNL1 (E-6): sc-377525. Western blot analysis of CGNL1 expression in F9 whole cell lysate (A) and human uterus (B) and mouse cerebellum (C) tissue extracts.



CGNL1 (E-6): sc-377525. Western blot analysis of CGNL1 expression in TT whole cell lysate (A) and human kidney tissue extract (B).

SELECT PRODUCT CITATIONS

1. Wilhide, M.E., et al. 2016. Renal epithelial miR-205 expression correlates with disease severity in a mouse model of congenital obstructive nephropathy. *Pediatr. Res.* 80: 602-609.
2. Vasileva, E., et al. 2017. Cell-specific diversity in the expression and organization of cytoplasmic plaque proteins of apical junctions. *Ann. N. Y. Acad. Sci.* 1405: 160-176.

RESEARCH USE

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