SANTA CRUZ BIOTECHNOLOGY, INC.

JCAD (F-7): sc-515169

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chromosome 10 contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10. As with most trisomies, trisomy 10 is rare and is deleterious.

REFERENCES

1. Troelstra, C., et al. 1992. Localization of the nucleotide excision repair gene ERCC6 to human chromosome 10q11-q21. Genomics 12: 745-749.
2. Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. Neurogenetics 4: 1-15.
3. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. Am. J. Hum. Genet. 81: 756-767.
4. Bechtel, S., et al. 2007. The full-ORF clone resource of the German cDNA Consortium. BMC Genomics 8: 399.
5. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. Am. J. Surg. Pathol. 32: 1258-1264.
6. Choe, J.Y., et al. 2008. Change in serum uric acid between baseline and 1-year follow-up and its associated factors in male subjects. Clin. Rheumatol. 27: 483-489.

CHROMOSOMAL LOCATION

Genetic locus: JCAD (human) mapping to 10p11.23; Jcad (mouse) mapping to 18 A1.

SOURCE

JCAD (F-7) is a mouse monoclonal antibody raised against amino acids 1021-1320 mapping at the C-terminus of JCAD of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chian in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

JCAD (F-7) is available conjugated to agarose (sc-515169 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515169 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515169 PE), fluorescein (sc-515169 FITC), Alexa Fluor® 488 (sc-515169 AF488), Alexa Fluor® 546 (sc-515169 AF546), Alexa Fluor® 594 (sc-515169 AF594) or Alexa Fluor® 647 (sc-515169 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515169 AF680) or Alexa Fluor® 790 (sc-515169 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

JCAD (F-7) is recommended for detection of JCAD 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 JCAD siRNA (m): sc-146454, JCAD shRNA Plasmid (m): sc-146454-SH and JCAD shRNA (m) Lentiviral Particles: sc-146454-V.

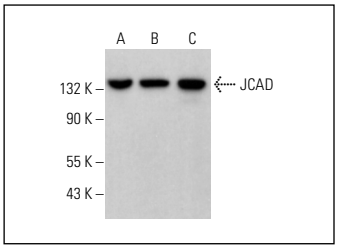
Molecular Weight of JCAD: 148 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, KNRK whole cell lysate: sc-2214 or 3T3-L1 cell lysate: sc-2243.

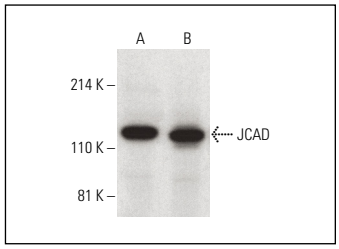
RECOMMENDED SUPPORT REAGENTS

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



JCAD (F-7): sc-515169. Western blot analysis of JCAD expression in 3T3-L1 (**A**), NIH/3T3 (**B**) and KNRK (**C**) whole cell lysates.



JCAD (F-7): sc-515169. Western blot analysis of JCAD expression in Hep G2 (**A**) and 3T3-L1 (**B**) whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.

SELECT PRODUCT CITATIONS

1. Badu-Nkansah, K. and Lechler, T. 2020. Proteomic analysis of desmosomes reveals novel components required for epidermal integrity. Mol. Biol. Cell 31: 1140-1153.

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.