SANTA CRUZ BIOTECHNOLOGY, INC.

CUEDC2 (N-15): sc-242520

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CUEDC2 (CUE domain containing 2), also known as HOYS6, is a 287 amino acid cytoplasmic and nuclear protein that contains one CUE domain, which it utilizes to interact with both PR and ERα, thereby influencing their protein expression levels by marking them for proteasomal degradation. A member of the CUEDC2 family, CUEDC2 also targets IKK for inactivation by PP1 recruitment. The gene encoding CUEDC2 maps to human chromosome 10, which 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

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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. Zhang, P.J., et al. 2007. CUE domain containing 2 regulates degradation of progesterone receptor by ubiquitin-proteasome. EMBO J. 26: 1831-1842.
5. Li, H.Y., et al. 2008. Deactivation of the kinase IKK by CUEDC2 through recruitment of the phosphatase PP1. Nat. Immunol. 9: 533-541.
6. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.
7. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. Hum. Mutat. 31: 113-126.

CHROMOSOMAL LOCATION

Genetic locus: CUEDC2 (human) mapping to 10q24.32; Cuedc2 (mouse) mapping to 19 C3.

SOURCE

CUEDC2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CUEDC2 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.

Blocking peptide available for competition studies, sc-242520 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CUEDC2 (N-15) is recommended for detection of CUEDC2 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); non cross-reactive with CUEDC1.

CUEDC2 (N-15) is also recommended for detection of CUEDC2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CUEDC2 siRNA (h): sc-90791, CUEDC2 siRNA (m): sc-142634, CUEDC2 shRNA Plasmid (h): sc-90791-SH, CUEDC2 shRNA Plasmid (m): sc-142634-SH, CUEDC2 shRNA (h) Lentiviral Particles: sc-90791-V and CUEDC2 shRNA (m) Lentiviral Particles: sc-142634-V.

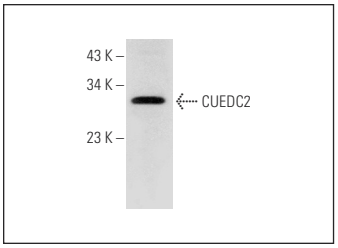
Molecular Weight of CUEDC2: 32 kDa.

Positive Controls: mouse brain extract: sc-2253.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CUEDC2 (N-15): sc-242520. Western blot analysis of CUEDC2 expression in mouse brain tissue extract.

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.