SANTA CRUZ BIOTECHNOLOGY, INC.

CUEDC1 (G-4): sc-393828

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The coupling of ubiquitin conjugation to endoplasmic reticulum (ER) degradation (CUE) domain functions as a ubiquitin (UB) binding domain that is approximately 40 amino acids in length. Present in eukaryotic proteins that are involved in ubiquitination and protein trafficking pathways, CUE domains can bind monoubiquitin and may be required for ubiquitination of the proteins in which they are found. CUEDC1 (CUE domain-containing protein 1) is a 386 amino acid protein that contains one CUE domain, suggesting a possible role in protein trafficking and degradation pathways. Defects in the gene encoding CUEDC1 may be associated with early stage cervical cancer, implicating CUEDC1 as a potential tumor marker. Two isoforms of CUEDC1 exist due to alternative splicing events.

REFERENCES

1. Ponting, C.P. 2000. Proteins of the endoplasmic-reticulum-associated degradation pathway: domain detection and function prediction. Biochem. J. 351: 527-535.
2. Prag, G., et al. 2003. Mechanism of ubiquitin recognition by the CUE domain of Vps9p. Cell 113: 609-620.
3. Kang, R.S., et al. 2003. Solution structure of a CUE-ubiquitin complex reveals a conserved mode of ubiquitin binding. Cell 113: 621-630.
4. Shih, S.C., et al. 2003. A ubiquitin-binding motif required for intramolecular monoubiquitylation, the CUE domain. EMBO J. 22: 1273-1281.
5. Colland, F., et al. 2004. Functional proteomics mapping of a human signaling pathway. Genome Res. 14: 1324-1332.
6. Biewenga, P., et al. 2008. Gene expression in early stage cervical cancer. Gynecol. Oncol. 108: 520-526.

CHROMOSOMAL LOCATION

Genetic locus: CUEDC1 (human) mapping to 17q22.

SOURCE

CUEDC1 (G-4) is a mouse monoclonal antibody raised against amino acids 232-315 mapping within an internal region of CUEDC1 of human origin.

PRODUCT

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

CUEDC1 (G-4) is available conjugated to agarose (sc-393828 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393828 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393828 PE), fluorescein (sc-393828 FITC), Alexa Fluor® 488 (sc-393828 AF488), Alexa Fluor® 546 (sc-393828 AF546), Alexa Fluor® 594 (sc-393828 AF594) or Alexa Fluor® 647 (sc-393828 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393828 AF680) or Alexa Fluor® 790 (sc-393828 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

CUEDC1 (G-4) is recommended for detection of CUEDC1 of 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 CUEDC1 siRNA (h): sc-94032, CUEDC1 shRNA Plasmid (h): sc-94032-SH and CUEDC1 shRNA (h) Lentiviral Particles: sc-94032-V.

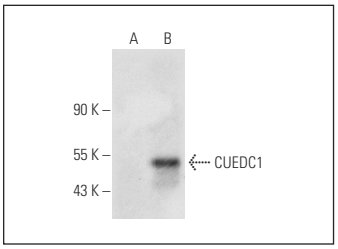
Molecular Weight of CUEDC1: 42 kDa.

Positive Controls: CUEDC1 (h): 293T Lysate: sc-116626.

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



CUEDC1 (G-4): sc-393828. Western blot analysis of CUEDC1 expression in non-transfected: sc-117752 (**A**) and human CUEDC1 transfected: sc-116626 (**B**) 293T 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.