CUEDC1 (N-14): sc-131907



The Power to Overtion

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

- Ponting, C.P. 2000. Proteins of the endoplasmic-reticulum-associated degradation pathway: domain detection and function prediction. Biochem. J. 351: 527-535.
- Prag, G., Misra, S., Jones, E.A., Ghirlando, R., Davies, B.A., Horazdovsky, B.F. and Hurley, J.H. 2003. Mechanism of ubiquitin recognition by the CUE domain of Vps9p. Cell 113: 609-620.
- 3. Kang, R.S., Daniels, C.M., Francis, S.A., Shih, S.C., Salerno, W.J., Hicke, L. and Radhakrishnan, I. 2003. Solution structure of a CUE-ubiquitin complex reveals a conserved mode of ubiquitin binding. Cell 113: 621-630.
- Shih, S.C., Prag, G., Francis, S.A., Sutanto, M.A., Hurley, J.H. and Hicke, L. 2003. A ubiquitin-binding motif required for intramo-lecular monoubiquitylation, the CUE domain. EMBO J. 22: 1273-1281.
- Colland, F., Jacq, X., Trouplin, V., Mougin, C., Groizeleau, C., Hamburger, A., Meil, A., Wojcik, J., Legrain, P. and Gauthier, J.M. 2004. Functional proteomics mapping of a human signaling pathway. Genome Res. 14: 1324-1332.
- Biewenga, P., Buist, M.R., Moerland, P.D., Ver Loren van Themaat, E., van Kampen, A.H., ten Kate, F.J. and Baas, F. 2008. Gene expression in early stage cervical cancer. Gynecol. Oncol. 108: 520-526.

CHROMOSOMAL LOCATION

Genetic locus: CUEDC1 (human) mapping to 17q22; Cuedc1 (mouse) mapping to 11 $\ensuremath{\text{C}}.$

SOURCE

CUEDC1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CUEDC1 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131907 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CUEDC1 (N-14) is recommended for detection of CUEDC1 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 CUEDC2.

Suitable for use as control antibody for CUEDC1 siRNA (h): sc-94032, CUEDC1 siRNA (m): sc-142633, CUEDC1 shRNA Plasmid (h): sc-94032-SH, CUEDC1 shRNA Plasmid (m): sc-142633-SH, CUEDC1 shRNA (h) Lentiviral Particles: sc-94032-V and CUEDC1 shRNA (m) Lentiviral Particles: sc-142633-V.

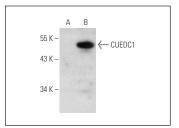
Molecular Weight of CUEDC1: 42 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or CUEDC1 (m3): 293T Lysate: sc-125185.

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



CUEDC1 (N-14): sc-131907. Western blot analysis of CUEDC1 expression in non-transfected: sc-117752 (A) and mouse CUEDC1 transfected: sc-125185 (B) 293T whole cell Ivsates.

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.