SANTA CRUZ BIOTECHNOLOGY, INC.

Dcun1D1 (3E1): sc-81835

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dcun1D1, (defective in cullin neddylation protein 1-like protein 1 or DCN1-like protein 1), also designated Rp42, Tes3 or squamous cell carcinoma-related oncogene (SCCRO) is involved in the malignant transformation of squamous cell lineage. Dcun1D1 regulates Gli1, a key regulator of the hedgehog (HH) pathway that plays an important role in development, maintenance, and regeneration of almost all adult tissues. Vascular endothelial growth factor-A (VEGF-A) is co-expressed with Dcun1D1, and the two function to induce angiogenesis. Overexpression of the Dcun1D1 gene is associated with invasive tumor progression and a poor outcome in non-small cell lung cancer, and low-level Dcun1D1 expression in adjacent benign lung tissue predicts an even worse survival rate. Dcun1D1 expression may be a marker of progressive dedifferentiation in squamous cell tumors.

REFERENCES

1. Estilo, C.L., et al. 2003. The role of novel oncogenes squamous cell carcinoma-related oncogene and phosphatidylinositol 3-kinase p110α in squamous cell carcinoma of the oral tongue. Clin. Cancer Res. 9: 2300-2306.
2. Lum, L. and Beachy, P.A. 2004. The hedgehog response network: sensors, switches, and routers. Science 304: 1755-1759.
3. Sarkaria, I.S., et al. 2004. SCCRO expression correlates with invasive progression in bronchioloalveolar carcinoma. Ann. Thorac. Surg. 78: 1734-1741.
4. Sarkaria, I.S., et al. 2004. Squamous cell carcinoma-related oncogene is highly expressed in developing, normal, and adenomatous adrenal tissue but not in aggressive adrenocortical carcinomas. Surgery 136: 1122-1128.
5. Talbot, S.G., et al. 2004. Squamous cell carcinoma related oncogene regulates angiogenesis through vascular endothelial growth factor-A. Ann. Surg. Oncol. 11: 530-534.
6. Jacques, C., et al. 2005. Two-step differential expression analysis reveals a new set of genes involved in thyroid oncocytic tumors. J. Clin. Endocrinol. Metab. 90: 2314-2320.

CHROMOSOMAL LOCATION

Genetic locus: DCUN1D1 (human) mapping to 3q26.33; Dcun1d1 (mouse) mapping to 3 B.

SOURCE

Dcun1D1 (3E1) is a mouse monoclonal antibody raised against recombinant Dcun1D1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Dcun1D1 (3E1) is recommended for detection of Dcun1D1 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).

Suitable for use as control antibody for Dcun1D1 siRNA (h): sc-61498, Dcun1D1 siRNA (m): sc-61499, Dcun1D1 shRNA Plasmid (h): sc-61498-SH, Dcun1D1 shRNA Plasmid (m): sc-61499-SH, Dcun1D1 shRNA (h) Lentiviral Particles: sc-61498-V and Dcun1D1 shRNA (m) Lentiviral Particles: sc-61499-V.

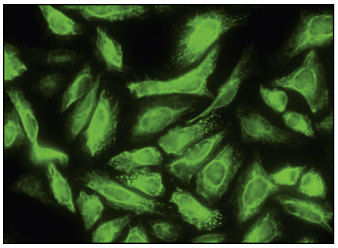
Molecular Weight of Dcun1D1: 30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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



Dcun1D1 (3E1): sc-81835. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Heir, P., et al. 2013. DCNL1 functions as a substrate sensor and activator of cullin 2-RING ligase. Mol. Cell. Biol. 33: 1621-1631.
2. Scott, D.C., et al. 2017. Blocking an N-terminal acetylation-dependent protein interaction inhibits an E3 ligase. Nat. Chem. Biol. 13: 850-857.

RESEARCH USE

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