SANTA CRUZ BIOTECHNOLOGY, INC.

DENR (NQ-B8): sc-134315

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DENR (density-regulated protein), also designated DRP or smooth muscle cell-associated protein 3 (SMAP-3), is a 198 amino acid protein whose expression increases when cells are present in high densities. It has also been shown that DENR expression does not increase during growth arrest. DENR is found in a variety of tissues with highest levels present in skeletal and cardiac muscle. DENR was also found at higher levels in cells expressing the neu proto-oncogene. DENR contains one SUI1 domain and interacts with MCTS1. The SUI1 domain contains sequence similarity to the budding yeast protein SUI1, which is a translation-initiation factor that directs the ribosome to the appropriate translation start site.

REFERENCES

1. Deyo, J.E., et al. 1998. Drp, a novel protein expressed at high cell density but not during growth arrest. DNA Cell Biol. 17: 437-447.
2. Oh, J.J., et al. 1999. Identification of differentially expressed genes associated with HER-2/Neu overexpression in human breast cancer cells. Nucleic Acids Res. 27: 4008-4017.
3. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604550. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Reinert, L.S., et al. 2006. MCT-1 protein interacts with the cap complex and modulates messenger RNA translational profiles. Cancer Res. 66: 8994-9001.
5. Mazan-Mamczarz, K. and Gartenhaus, R.B. 2007. Post-transcriptional control of the MCT-1-associated protein DENR/DRP by RNA-binding protein AUF1. Cancer Genomics Proteomics 4: 233-239.

CHROMOSOMAL LOCATION

Genetic locus: DENR (human) mapping to 12q24.31; Denr (mouse) mapping to 5 F.

SOURCE

DENR (NQ-B8) is a mouse monoclonal antibody raised against recombinant DENR protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} 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.

PROTOCOLS

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

APPLICATIONS

DENR (NQ-B8) is recommended for detection of DENR 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DENR siRNA (h): sc-95769, DENR siRNA (m): sc-143005, DENR shRNA Plasmid (h): sc-95769-SH, DENR shRNA Plasmid (m): sc-143005-SH, DENR shRNA (h) Lentiviral Particles: sc-95769-V and DENR shRNA (m) Lentiviral Particles: sc-143005-V.

Molecular Weight (predicted) of DENR: 22 kDa.

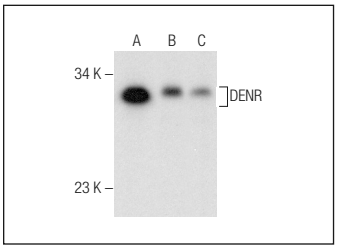
Molecular Weight (observed) of DENR: 27-31 kDa.

Positive Controls: DENR (m): 293T Lysate: sc-119746, K-562 whole cell lysate: sc-2203 or HCT-8 cell lysate: sc-24675.

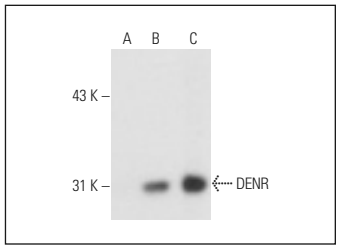
RECOMMENDED SUPPORT REAGENTS

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).

DATA



DENR (NQ-B8): sc-134315. Western blot analysis of DENR expression in K-562 (**A**) and HeLa (**B**) nuclear extracts and HCT-8 whole cell lysate (**C**).



DENR (NQ-B8): sc-134315. Western blot analysis of DENR expression in non-transfected 293T: sc-117752 (**A**), mouse DENR transfected 293T: sc-119746 (**B**) and K-562 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sun, R., et al. 2014. Dietary supplementation with fish oil alters the expression levels of proteins governing mitochondrial dynamics and prevents high-fat diet-induced endothelial dysfunction. Br. J. Nutr. 112: 145-153.
2. Wang, J., et al. 2015. Retinol binding protein 4 induces mitochondrial dysfunction and vascular oxidative damage. Atherosclerosis 240: 335-344.

RESEARCH USE

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