

Peg10 (h): 293T Lysate: sc-116409

BACKGROUND

Peg10 (paternally expressed gene 10), also known as EDR, KIAA1051, MAR2, MART2, MEF3L1 or RGAG3, is a 708 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one CCHC-type zinc finger. Expressed in placenta, brain, kidney, liver, thymus, lung, ovary and spleen, Peg10 plays a role in cell growth promotion and apoptosis prevention and is, therefore, thought to be a potent factor in tumor formation and metastasis. Peg10 exists as two distinct isoforms, designated RF1 and RF1/RF2, which have distinctive active sites, but are both associated with cell growth and differentiation control. The gene encoding Peg10 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to *Osteogenesis imperfecta*, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

1. Ono, R., et al. 2001. A retrotransposon-derived gene, Peg10, is a novel imprinted gene located on human chromosome 7q21. *Genomics* 73: 232-237.
2. Shigemoto, K., et al. 2001. Identification and characterisation of a developmentally regulated mammalian gene that utilises -1 programmed ribosomal frameshifting. *Nucleic Acids Res.* 29: 4079-4088.
3. Li, C.M., et al. 2006. Peg10 is a c-Myc target gene in cancer cells. *Cancer Res.* 66: 665-672.
4. Ono, R., et al. 2006. Deletion of Peg10, an imprinted gene acquired from a retrotransposon, causes early embryonic lethality. *Nat. Genet.* 38: 101-106.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609810. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Kainz, B., et al. 2007. Overexpression of the paternally expressed gene 10 (Peg10) from the imprinted locus on chromosome 7q21 in high-risk B cell chronic lymphocytic leukemia. *Int. J. Cancer* 121: 1984-1993.
7. Clark, M.B., et al. 2007. Mammalian gene Peg10 expresses two reading frames by high efficiency -1 frameshifting in embryonic-associated tissues. *J. Biol. Chem.* 282: 37359-37369.

CHROMOSOMAL LOCATION

Genetic locus: PEG10 (human) mapping to 7q21.3.

PRODUCT

Peg10 (h): 293T Lysate represents a lysate of human Peg10 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

Peg10 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Peg10 antibodies. Recommended use: 10-20 µl per lane.

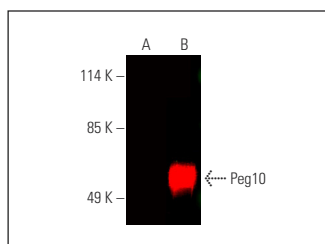
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Peg10 (C-7): sc-365675 is recommended as a positive control antibody for Western Blot analysis of enhanced human Peg10 expression in Peg10 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

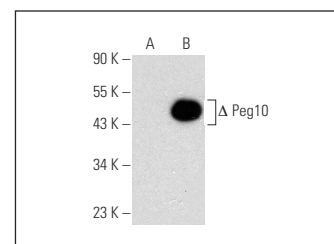
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Peg10 (C-7): sc-365675. Near-infrared western blot analysis of Peg10 expression in non-transfected: sc-117752 (A) and human Peg10 transfected: sc-116409 (B) 293T whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



Peg10 (C-7): sc-365675. Western blot analysis of Peg10 expression in non-transfected: sc-117752 (A) and truncated human Peg10 transfected: sc-116409 (B) 293T whole cell lysates.

PROTOCOLS

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