

Peg10 (C-7): sc-365675

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 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/>

CHROMOSOMAL LOCATION

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

SOURCE

Peg10 (C-7) is a mouse monoclonal antibody raised against amino acids 81-240 mapping near the N-terminus of Peg10 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Peg10 (C-7) is available conjugated to agarose (sc-365675 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365675 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365675 PE), fluorescein (sc-365675 FITC), Alexa Fluor® 488 (sc-365675 AF488), Alexa Fluor® 546 (sc-365675 AF546), Alexa Fluor® 594 (sc-365675 AF594) or Alexa Fluor® 647 (sc-365675 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365675 AF680) or Alexa Fluor® 790 (sc-365675 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Peg10 (C-7) is recommended for detection of Peg10 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 Peg10 siRNA (h): sc-89888, Peg10 shRNA Plasmid (h): sc-89888-SH and Peg10 shRNA (h) Lentiviral Particles: sc-89888-V.

Molecular Weight of human Peg10 RF1 variant: 37 kDa.

Molecular Weight of human Peg10 RF1/PF2 variant: 80 kDa.

Molecular Weight of mouse Peg10 RF1 variant: 42 kDa.

Molecular Weight of mouse Peg10 RF1/PF2 variant: 110 kDa.

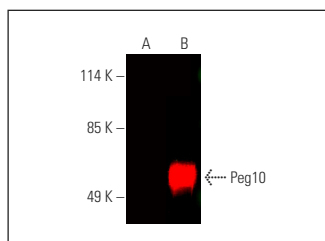
Positive Controls: Peg10 (h): 293T Lysate: sc-116409.

RECOMMENDED SUPPORT REAGENTS

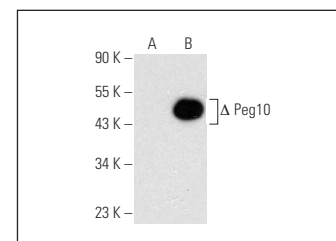
To ensure optimal results, the following support reagents are recommended:

- 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



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.

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.