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PEG10 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12661A

Specification

PEG10 Antibody (N-term) - Product Information

Application	**FC, WB,E**
Primary Accession	Q86TG7
Other Accession	NP_055883.2, NP_001035242.1, NP_001171891.1, NP_001171890.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**80173**
Antigen Region	**1-30**

PEG10 Antibody (N-term) - Additional Information

Gene ID 23089

Other Names
Retrotransposon-derived protein PEG10, Embryonal carcinoma differentiation-regulated protein, Mammalian retrotransposon-derived protein 2, Myelin expression factor 3-like protein 1, MEF3-like protein 1, Paternally expressed gene 10 protein, Retrotransposon gag domain-containing protein 3, Retrotransposon-derived gag-like polyprotein, Ty3/Gypsy-like protein, PEG10, EDR, KIAA1051, MAR2, MART2, MEF3L1, RGAG3

Target/Specificity
This PEG10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PEG10.

Dilution
FC~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PEG10 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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PEG10 Antibody (N-term) - Protein Information

Name PEG10 {ECO:0000303|PubMed:11318613, ECO:0000312|HGNC:HGNC:14005}

Function Retrotransposon-derived protein that binds its own mRNA and self-assembles into virion-like capsids (PubMed:34413232). Forms virion-like extracellular vesicles that encapsulate their own mRNA and are released from cells, enabling intercellular transfer of PEG10 mRNA (PubMed:34413232). Binds its own mRNA in the 5'-UTR region, in the region near the boundary between the nucleocapsid (NC) and protease (PRO) coding sequences and in the beginning of the 3'-UTR region (PubMed:34413232). Involved in placenta formation: required for trophoblast stem cells differentiation (By similarity). Involved at the immediate early stage of adipocyte differentiation (By similarity). Overexpressed in many cancers and enhances tumor progression: promotes cell proliferation by driving cell cycle progression from G0/G1 (PubMed:12810624, PubMed:16423995, PubMed:26235627, PubMed:28193232). Enhances cancer progression by inhibiting the TGF-beta signaling, possibly via interaction with the TGF-beta receptor ACVRL1 (PubMed:15611116, PubMed:26235627, PubMed:30094509). May bind to the 5'-GCCTGTCTTT-3' DNA sequence of the MB1 domain in the myelin basic protein (MBP) promoter; additional evidences are however required to confirm this result (By similarity).

Cellular Location
Extracellular vesicle membrane. Cytoplasm. Nucleus Note=Forms virion-like extracellular vesicles that are released from cells (PubMed:34413232). Detected predominantly in the cytoplasm of breast and prostate carcinomas, in hepatocellular carcinoma (HCC) and B-cell chronic lymphocytic leukemia (B-CLL) cells and in the Hep-G2 cell line (PubMed:12810624).

Tissue Location
Expressed in the cytotrophoblast layer but not in the overlying syncytiotrophoblast of the placenta. Expressed in prostate and breast carcinomas but not in normal breast and prostate epithelial cells. Expressed in the Hep-G2 cell line (at protein level) Expressed in brain, liver, spleen, kidney, thymus, lung, ovary, testis, reactive lymph node, skeletal muscle, adipose tissue and placenta Expressed in pancreatic and hepatocellular carcinomas (HCC)

PEG10 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PEG10 Antibody (N-term) - Images

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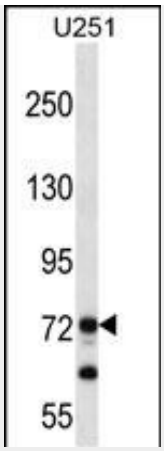
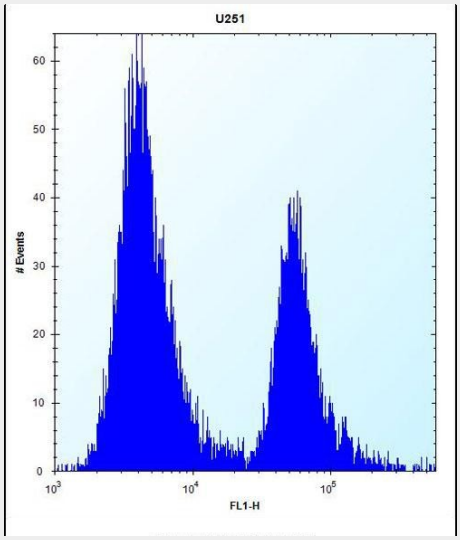


PEG10 Antibody (N-term) (Cat. #AP12661a) western blot analysis in U251 cell line lysates (35ug/lane).This demonstrates the PEG10 antibody detected the PEG10 protein (arrow).



PEG10 Antibody (N-term) (Cat. #AP12661a) flow cytometric analysis of U251 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

PEG10 Antibody (N-term) - Background

This is a paternally expressed imprinted gene that encodes transcripts containing two overlapping open reading frames (ORFs), RF1 and RF1/RF2, as well as retroviral-like slippage and pseudoknot elements, which can induce a -1 nucleotide frame-shift. ORF1 encodes a shorter isoform with a CCHC-type zinc finger motif containing a sequence characteristic of gag proteins of most retroviruses and some retrotransposons. The longer isoform is the result of -1 translational frame-shifting leading to translation of a gag/pol-like protein combining RF1 and RF2. It contains the active-site consensus sequence of the protease domain of pol proteins. Additional isoforms resulting from alternatively spliced transcript variants, as well as from use of upstream non-AUG (CUG) start codon, have been reported for this gene. Increased expression of this gene is associated with hepatocellular carcinomas.

PEG10 Antibody (N-term) - References

Tsuji, K., et al. Cancer Genet. Cytogenet. 198(2):118-125(2010)
Chang, Y., et al. Zhonghua Gan Zang Bing Za Zhi 18(4):288-291(2010)
Lux, H., et al. PLoS ONE 5 (1), E8686 (2010) :
Wang, C., et al. FEBS Lett. 582(18):2793-2798(2008)
Lux, A., et al. J. Biol. Chem. 280(9):8482-8493(2005)