

PEG10 Antibody (N-term) Blocking peptide

Synthetic peptide Catalog # BP12661a

Specification

PEG10 Antibody (N-term) Blocking peptide - Product Information

Primary Accession

Q86TG7

PEG10 Antibody (N-term) Blocking peptide - 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

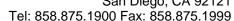
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PEG10 Antibody (N-term) Blocking peptide - 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:<a href="http://www.uniprot.org/citations/26235627"





target=" blank">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) Blocking peptide - Protocols

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

• Blocking Peptides

PEG10 Antibody (N-term) Blocking peptide - Images

PEG10 Antibody (N-term) Blocking peptide - Background

This is a paternally expressed imprinted gene that encodestranscripts containing two overlapping open reading frames (ORFs), RF1 and RF1/RF2, as well as retroviral-like slippage and pseudoknotelements, which can induce a -1 nucleotide frame-shift. ORF1encodes a shorter isoform with a CCHC-type zinc finger motifcontaining a sequence characteristic of gag proteins of mostretroviruses and some retrotransposons. The longer isoform is theresult of -1 translational frame-shifting leading to translation of aga/pol-like protein combining RF1 and RF2. It contains theactive-site consensus sequence of the protease domain of polproteins. Additional isoforms resulting from alternatively splicedtranscript variants, as well as from use of upstream non-AUG (CUG)start codon, have been reported for this gene. Increased expressionof this gene is associated with hepatocellular carcinomas.

PEG10 Antibody (N-term) Blocking peptide - 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)