

**PEG10 Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12661a****Specification**

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**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:<a href="http://www.uniprot.org/citations/34413232" target="\_blank">34413232</a>). Forms virion-like extracellular vesicles that encapsulate their own mRNA and are released from cells, enabling intercellular transfer of PEG10 mRNA (PubMed:<a href="http://www.uniprot.org/citations/34413232" target="\_blank">34413232</a>). 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:<a href="http://www.uniprot.org/citations/34413232" target="\_blank">34413232</a>). 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:<a href="http://www.uniprot.org/citations/12810624" target="\_blank">12810624</a>, PubMed:<a href="http://www.uniprot.org/citations/16423995" target="\_blank">16423995</a>, PubMed:<a href="http://www.uniprot.org/citations/26235627" target="\_blank">26235627</a>).

target="\_blank">26235627</a>, PubMed:<a href="http://www.uniprot.org/citations/28193232" target="\_blank">28193232</a>). Enhances cancer progression by inhibiting the TGF-beta signaling, possibly via interaction with the TGF-beta receptor ACVRL1 (PubMed:<a href="http://www.uniprot.org/citations/15611116" target="\_blank">15611116</a>, PubMed:<a href="http://www.uniprot.org/citations/26235627" target="\_blank">26235627</a>, PubMed:<a href="http://www.uniprot.org/citations/30094509" target="\_blank">30094509</a>). 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 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) 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)