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Anti-PEG10 Antibody (1E2-F12-C12)

Mouse Monoclonal Antibody
Catalog # ABV12052

Product Information

Application	WB, IP
Primary Accession	Q86TG7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	1E2-F12-C12
Calculated MW	80173

Additional Information

Gene ID	23089
Application & Usage	WB; HeLa cell lysate, IP: HeLa cell lysate
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
Target/Specificity	PEG10
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	In buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50%,glycerol
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-PEG10 Antibody (1E2-F12-C12) is for research use only and not for use in diagnostic or therapeutic procedures.

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 evidence is 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).

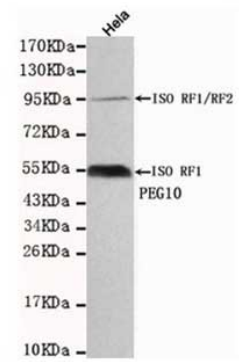
Tissue Location

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)

Background

Prevents apoptosis in hepatocellular carcinoma (HCC) cells through interaction with SIAH1, a mediator of apoptosis. May also have a role in cell growth promotion and hepatoma formation. Inhibits the TGF-beta signaling by interacting with the TGF-beta receptor ALK1. When overexpressed, induces the formation of cellular extension, such as filipodia in association with ALK1. Involved at the immediate early stage of adipocyte differentiation (By similarity). May bind to the 5'-GCCTGTCTTT-3' DNA sequence of the MB1 domain in the myelin basic protein (MBP) promoter.

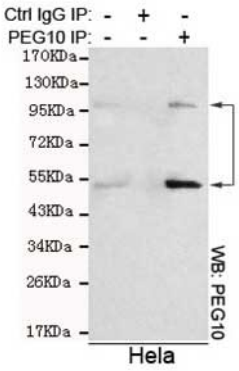
Images



Western blot detection of PEG10 in HeLa cell lysates using PEG10 mouse mAb

Immunoprecipitation analysis of Hela cell lysates using

PEG10 mouse mAb.



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