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LIN28B Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP1485c

Specification

LIN28B Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q6ZN17

LIN28B Antibody (Center) Blocking Peptide - Additional Information

Gene ID 389421

Other Names
Protein lin-28 homolog B, Lin-28B, LIN28B, CSDD2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1485c was selected from the Center region of human LIN28B. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

LIN28B Antibody (Center) Blocking Peptide - Protein Information

Name LIN28B

Synonyms CSDD2

Function
Suppressor of microRNA (miRNA) biogenesis, including that of let-7 and possibly of miR107, miR-143 and miR-200c. Binds primary let-7 transcripts (pri-let-7), including pri-let-7g and pri-let-7a-1, and sequester them in the nucleolus, away from the microprocessor complex, hence preventing their processing into mature miRNA (PubMed:22118463). Does not act on pri-miR21 (PubMed:22118463). The repression of let-7 expression is required for normal development and contributes to maintain the pluripotent state of embryonic stem cells by preventing let-7-mediated differentiation. When overexpressed, recruits ZCCHC11/TUT4 uridylyltransferase to pre-let-7 transcripts, leading to their terminal uridylation and degradation

(PubMed:19703396). This activity might not be relevant in vivo, as LIN28B-mediated inhibition of let-7 miRNA maturation appears to be ZCCHC11-independent (PubMed:22118463). Interaction with target pre-miRNAs occurs via an 5'- GGAG-3' motif in the pre-miRNA terminal loop. Mediates MYC-induced let- 7 repression (By similarity). When overexpressed, isoform 1 stimulates growth of the breast adenocarcinoma cell line MCF-7. Isoform 2 has no effect on cell growth.

Cellular Location
Nucleus. Nucleus, nucleolus. Cytoplasm Note=Predominantly nucleolar (PubMed:22118463). In Huh7 cells, predominantly cytoplasmic, with only a subset of cells exhibiting strong nuclear staining; however, the specificity of the polyclonal antibody used in these experiments has not been not documented (PubMed:16971064).

Tissue Location
Expressed at high levels in the placenta and, at mucher lower, in testis and fetal liver (PubMed:16971064). Isoform 1 is only detected in placenta and in moderately and poorly differentiated hepatocellular carcinoma cells (at protein level). Isoform 2 is detected in fetal liver, non-tumor liver tissues, as well as well- differentiated tumor tissues (at protein level). Tends to be up- regulated in triple-negative (ER-,PR-,HER2-) breast tumors, as well as in liver, ovarian, and thyroid carcinomas (PubMed:22118463)

LIN28B Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

LIN28B Antibody (Center) Blocking Peptide - Images

LIN28B Antibody (Center) Blocking Peptide - Background

Lin-28 homolog B (LIN28B) is overexpressed in hepatocellular carcinoma. The heterochronic gene lin-28 is a key regulator of developmental timing in the nematode Caenorhabditis elegans. Similar with lin-28 proteins, LIN28B conserves a cold shock domain and a pair of CCHC zinc finger domains. Phylogenetic analysis suggests that they might arise as a result of duplication from an ancestral gene. Overexpression of LIN28B was noted in most HCC cell lines and clinical samples. A short LIN28B isoform was also identified in non-tumor liver tissue and fetal liver. Although predominantly localized in the cytoplasm, LIN28B protein shows cell cycle-dependent nuclear translocation in Huh7 cells. Induced expression of exogenous LIN28B in a tet-off cell line promoted cancer cell proliferation.

LIN28B Antibody (Center) Blocking Peptide - References

Guo,Y., Gene 384, 51-61 (2006)