

KD-Validated Anti-Lin-28 Homolog B Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1999

Product Information

Application	WB, FC, ICC
Primary Accession	Q6ZN17
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1 kappa
Clone Names	24GB7210
Calculated MW	27084
Gene Name	LIN28B
Aliases	LIN28B; Lin-28 Homolog B; CSDD2; Protein Lin-28 Homolog B; FLJ16517; Lin-28B; Lin-28 Homolog B (C. Elegans); Lin-28.2
Immunogen	Recombinant protein of human LIN28B

Additional Information

Gene ID	389421
Other Names	Protein lin-28 homolog B, Lin-28B, LIN28B, CSDD2

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 much 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)

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