

## **Product datasheet for TG508556**

## Lin28b Mouse shRNA Plasmid (Locus ID 380669)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Lin28b Mouse shRNA Plasmid (Locus ID 380669)

**Locus ID:** 380669

**Synonyms:** 2810403D23Rik; D030047M17Rik; Lin-28.2

**Vector:** pGFP-V-RS (TR30007)

E. coli Selection: Kanamycin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: Lin28b - Mouse, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID =

380669). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.

RefSeq: <u>BC089037, NM\_001031772, NM\_001031772.1, NM\_001031772.2, BC085193, NM\_001033152</u>

UniProt ID: Q45KJ6

**Summary:** 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. Does not act on pri-miR21. 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. This activity might not be relevant in vivo, as LIN28B-mediated inhibition of let-7 miRNA maturation appears to be ZCCHC11-independent. Interaction with target pre-miRNAs occurs via an 5'-GGAG-3' motif in the pre-miRNA terminal

loop (By similarity). Mediates MYC-induced let-7 repression (PubMed:19211792). When overexpressed, may stimulate growth of carcinoma cell lines (By similarity).[UniProtKB/Swiss-

Prot Function]

shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To

be certain that your variant of interest is targeted, please contact <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u>.



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## Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).