Supplementary information:

Conserved miR-10 family represses proliferation and induces apoptosis in ovarian granulosa cells

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Supplementary figure 1. (A) The precursor sequences of miR-10 and miR-10b of human, mouse and rat. The red color highlights the mature sequences of miRNA and the green color indicates the difference of sequences among different species. (B) The amplification plot of qPCR shows the expression of miR-10a and miR-10b significantly increase after corresponding miRNA mimics transfection. (C) FISH results show the expression pattern of miR-10a and miR-10b in rat ovary. (D) Gene Ontology results of DEG in miR-10b overexpressed GCs. (E) Pathway analysis results of DEG in miR-10b overexpressed GCs. (F) The reverse expression patterns of BDNF and miR-10b in mouse ovary. (G) The western blot results show BDNF was repressed by shRNA in GCs. (H) The full-length western-blot results.

Supplementary table 1. All oligo sequences that included in this manuscript.

>hsa-miR-10a-5p Α **UACCCUGUAGAUCCGAAUUUGUG**

>mmu-miR-10a-5p **UACCCUGUAGAUCCGAAUUUGUG**

>Rho-miR-10a-5p **UACCCUGUAGAUCCGAAUUUGUG**

>hsa-miR-10b-5p UACCCUGUAGAACCGAAUUUGUG

>mmu-miR-10b-5p UACCCUGUAGAACCGAAUUUGUG

>rno-miR-10b-5p **CCCUGUAGAACCGAAUUUGUGU**





C

MiR-10b/BDNF/DAPI

F







biological adhesion biological regulation cell proliferation cellular component organization or biogenesis cellular process death developmental process establishment of localization growth enmune system process Socalization locomotion metabolic process multicellular organismal processmulti-organism process negative regulation of biological process positive regulation of biological process regulation of biological process reproduction reproductive process. response to stimulus. rhythmic process. signaling signaling process viral reproduction cell cell partintraceflular ingion extracellular region part macromolecular complex membrane-enclosed lumen organetie organelle part binding catalytic activity enzyme regulator activity molecular transducer activity receptor regulator activity structural molecule activity transcription regulator activity bunsporter activity -

> Top 20 Statistics of Pathway Enrichment for SVOGNC-VS-SVOGmiR_10b



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E



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primer name	sequence
BDNF 1# shRNA F	GATCCCCGGCCAACTGAAGCAATACTTTCAAGAGAAGTATTGCTTCAGTTGGCCTTTTTA
BDNF 1# shRNA R	AGCTTAAAAAGGCCAACTGAAGCAATACTTCTCTTGAAAGTATTGCTTCAGTTGGCCGGG
BMP4 qPCR F	TGGGCTGGAATGACTGGATT
BMP4 qPCR R	TGGCATGGTTGGTTGAGTTG
AMH qPCR F	CAGCTCTATCACTGGGGAGG
AMH qPCR R	CAGACCCCTATCTCCTCTGC
BDNFqPCR F	CACCAAGACTTGAAGGTGCC
BDNFqPCR R	ATGAACAGACAGGATGGGCA
SMAD1 qPCR F	GTACTTCCTCCTGTGCTGGT
SMAD1 qPCR R	TGGAAAAGTGGCGTTGAGTG
SAMD3 qPCR F	GAGGGAGATGGAGAGGCTTC
SAMD3 qPCR R	CCTTCCGTCTCTTCCTGTGT
SAMD6 qPCR F	GATTCCCAGCAGCTCTTTGG
SAMD6 qPCR R	GATTTGCATGCACGAAAGGC
ACVR1 qPCR F	CCTAACCTCGCTCGATGACT
ACVR1 qPCR R	CTCCAGTCCCTACCTTTGCA