

Supplementary Files

Article

Transactivation of miR-202-5p by Steroidogenic Factor 1 (SF1) Induces Apoptosis in Goat Granulosa Cells by Targeting TGF β R2

Qiang Ding [†], Miaohan Jin [†], Yaoyue Wang, Jiao Liu, Peter Kalds, Ying Wang, Yuxin Yang, Xiaolong Wang ^{*} and Yulin Chen ^{*}

Key Laboratory of Animal Genetics, Breeding and Reproduction of Shaanxi Province, College of Animal Science and Technology, Northwest A&F University, Yangling 712100, Shaanxi, China;
dingqiang@nwafu.edu.cn (Q.D.); jinmiaohan@nwafu.edu.cn (M.J.); 18792629437@163.com (Y.W.);
liujiaodk@163.com (J.L.); peterkalds@nwafu.edu.cn (P.K.); nd2013wang@163.com (Y.W.);
yangyuxin2002@126.com (Y.Y.)

[†] These authors equally contribute to this paper

^{*} Correspondence: xiaolongwang@nwafu.edu.cn (X.W.); chenyulin@nwafu.edu.cn (Y.C.)

Supplementary Tables

Table S1. the primers are used in this study.

Primers	Sequences (5'-3')
CYP19A1 promoter R	TCCTCGAGTGGAGATCAGAAGAGTGGAA
No SF1 binding site (-40 nt to -211nt)	CTGCTAGCTCTTGGGCTTGCTTGTTT
0.5 kb promoter CYP19A1 (-40 nt to -522 nt)	TAGCTAGCTGACTGGAGAAGCCTACC
1.6 kb promoter CYP19A1 (-40 nt to -1640 nt)	CGGCTAGCGTGGTGACAGATAACAACCTAG
CYP19A1 Promoter SF1 binding site mut F	ACTCTACACCGTACCGAAATGCTGCACTTCAAGCCAAAAG
CYP19A1 promoter SF1 binding site mut R	ATTTCCGGTACGGTGTAGAGTCTCAGGTTTCGTTTAGACGCTTG
miR-202 WT promoter R	CCAAGCTTCTTACCTGGTCGCAGTCA
miR-202 WT 0.5 K promoter F (-130 nt to -515 nt)	GAAGATCTGAGATGCCGTTCTGAAG
miR-202 NO binding site promoter F (-130nt to -257nt)	GAAGATCTGCCTGGCATAAAAAGGCGCCA
miR-202 promoter SF1 binding site mut F	CCGCGATTGAATCTGCCTGGCATAAAAAGGCGCCAGGCGGTC
miR-202 promoter SF1 binding site mut R	AGGCAGATTCAATCGCGGGGCGGCCGTCACGTGCGGTCAC
TGFβ2 F	TCAGCCGAATAGGTAGGAA
TGFβ2 R	AGAGGTCAATGAGCAACAG
TGFβ1 F	TCCACGAGACAGGCCATTTG
TGFβ1 R	GACGGCTTTCCTGTAAAAGGG
GAPDH F	ACACCCTCAAGATTGTCAGC
GAPDH R	ATAAGTCCCTCCACGATGC
BAX F	CTGAGCGAGTGTCTGAAG
BAX R	TCGAAGGAAGTCCAATGTC
Bcl2 F	TTCTTTGAGTTCGGAGGGG
Bcl2 R	CCAGGAGAAATCAAACAGGGGG
PCNA F	ACTCGTCTCATGTCTCCTT
PCNA R	GGTGTCCGATTATCTTCA
Notch2 F	TGGAGATGAAGAACAGGAAG
Notch2 R	AACAGCAAGCAGATAGAGAA
Chi-miR-202-5p for cDNA reverse	GTCGTATCCAGTGCAGGGTCCGAGGTATTCGCACTGGATACGACA AAGAA
Chi-miR-202-5p for qPCR UR R	GCGGGCTTCCTATGCATATACT CAGTGCAGGGTCCGAGGT GTCGTATCCAGTGCAGGGTCCGAGGTATTCGCACTGGATACGACC AAGCT
Cel-miRNA-39 R	TCACCGGGTGTAATCAGCT
Cel-miRNA-39 F	CTCGCTTCGGCAGCAC
U6 F	AACGCTTCACGAATTTGCGT
U6 R	CCCTCGAGACTCCAAGAAGTTGTTGTCA
TGFβ2 3'UTR WT F	TTTGCGGGCCGCTCCACCTGAACCGAGAAG
TGFβ2 3'UTR WT R	TAATCCTCGAGATGGAACCTGGTAATCCACAAACA
TGFβ2 3'UTR Wut F	TCCATCTCGAGGATTAAAGCTCATTCTTGGTT
TGFβ2 3'UTR Wut R	CCAAGCTTATGGACTATTTCGTACGACGA
SF1 CDS F	CGGGATCCAGTCTGCTTGGCCTGCAGCA
SF1 CDS R	CCAAGCTTATGGGCCCCGGGGCTGCTC
TGFβ2 CDS F	CGGGATCCCTATTTGGTAGTGTGAGGG
TGFβ2 CDS R	GAGAACTCAGTCACTCTACC
ChIP CYP19A1 F	

ChIP CYP19A1 R
 ChIP miR-202 F
 ChIP miR-202 R

TGGACACTTAGACAAGACAA
 CTCAGAGCAGGTCTTTGTG
 CTTACCTGGTCGCAGTCA

Table S2. the sequences of siRNA are used in this study.

siRNA	sense (5'-3')	antisense (5'-3')
TGFBR2-goat-984	GCAAUGACCACAUCAUCUUTT	AAGAUGAUGUGGUCAUUGCTT
TGFBR2-goat-1843	CCUCGAGUCCAGGAUGAAUTT	AUUCAUCCUGGACUCGAGGTT
NR5A1-goat-311	GCACGGUGCAGAACACAATT	UUGUUGUUCUGCACCGUGCTT
NR5A1-goat-525	GGCACAGAUUCGAGCCAAUTT	AUUGGCUCGAAUCUGUGCCTT
chi-miR-202-5p mimics	UUCCUAUGCAUAUACUUCUUU	AGAAGUSUGCAUAGGAAUU
chi-miR-202-5p inhibitor	AAAGAAGUAUGCAUAGGAA	
mimics NC/siRNA NC	UUCUCCGAACGUGUCACGUTT	ACGUGACACGUUCGGAGAATT
Inhibitor NC	CAGUACUUUUGUGUAGUACAA	

Supplementary Figure

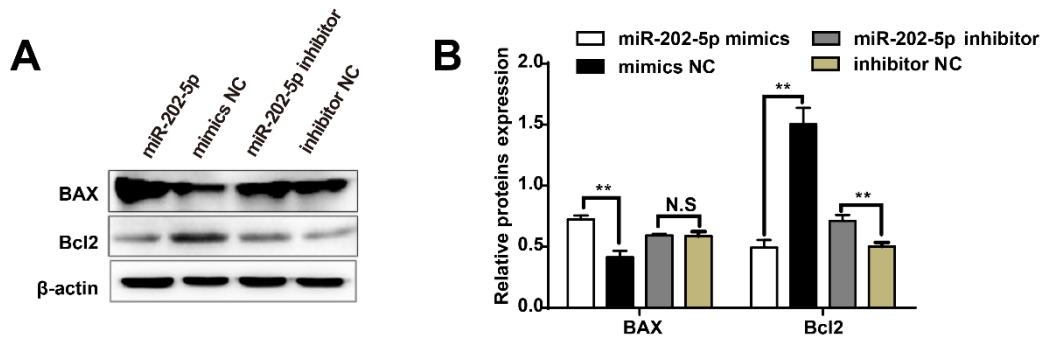


Figure S1. miR-202-5p induces GCs apoptosis. GCs were treated with miR-202-5p mimics or miR-202-5p inhibitors and mimics NC or inhibitor NC. Proteins levels of BAX and Bcl2 detected by WB (A); The relative protein levels were calculated (B).