cells

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Article

Identification of Genes and microRNAs Associated with Midfacial Hypoplasia in Mice

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Supplementary Materials

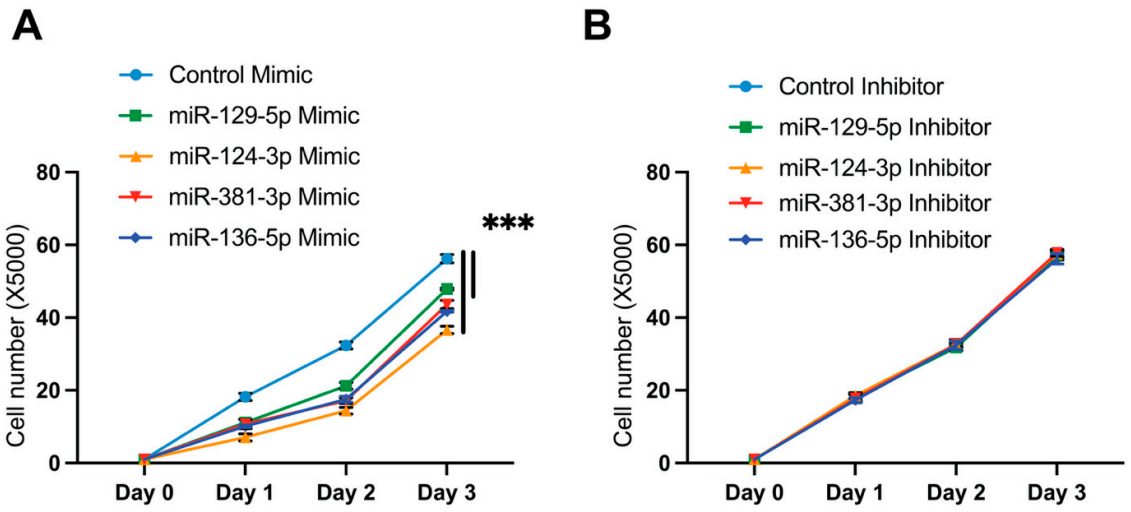


Figure S1. Effect of mimic and inhibitor of candidate miRNAs on cell proliferation in O9-1 cells. (**A**) Cell proliferation assays in O9-1 cells treated with the indicated miRNA mimic (left) and inhibitor (right). ***$p < 0.001$.

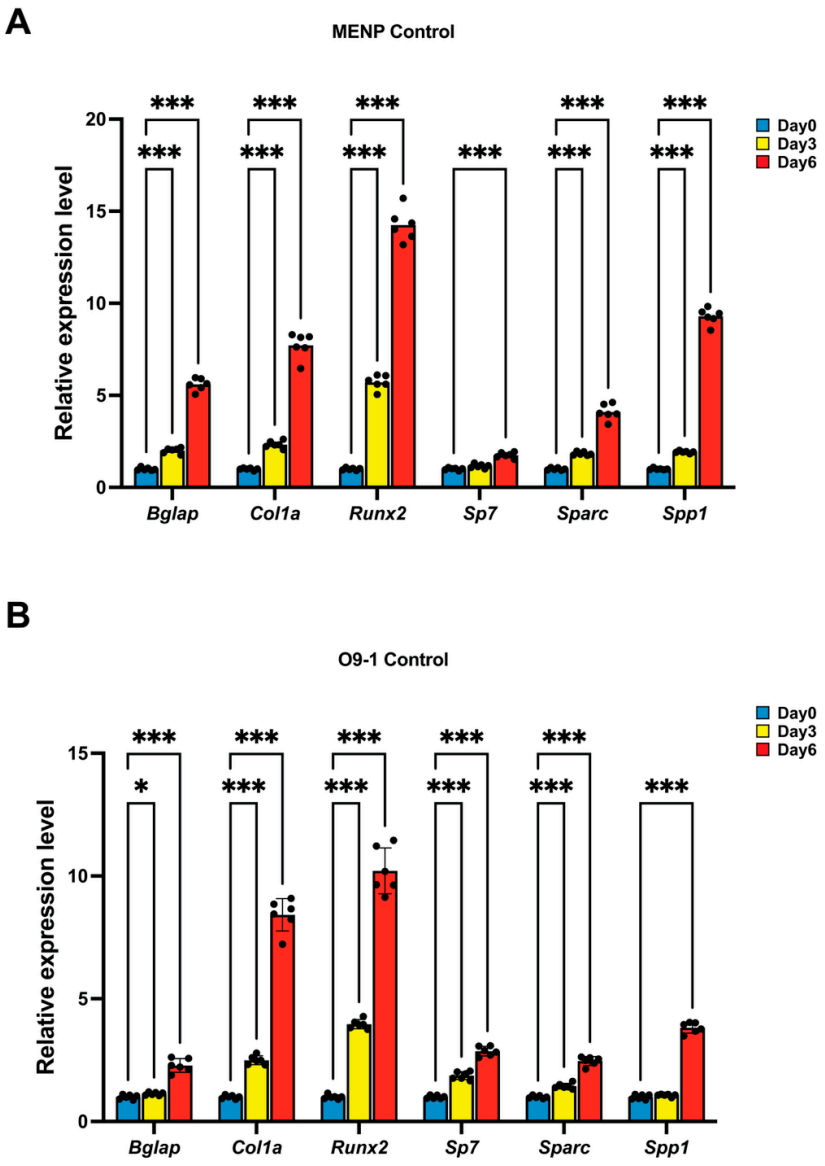


Figure S2. Osteogenic differentiation in primary NP and O9-1 cells treated with a negative control. Quantitative RT-PCR for osteogenic genes in primary NP cells (A) and O9-1 cells (B) treated with a negative control at Day 0 (blue bars), Day 3 (yellow bars), and Day 6 (red bars). *$p < 0.05$, **$p < 0.01$, and ***$p < 0.001$. Each group was compared to Day 0.

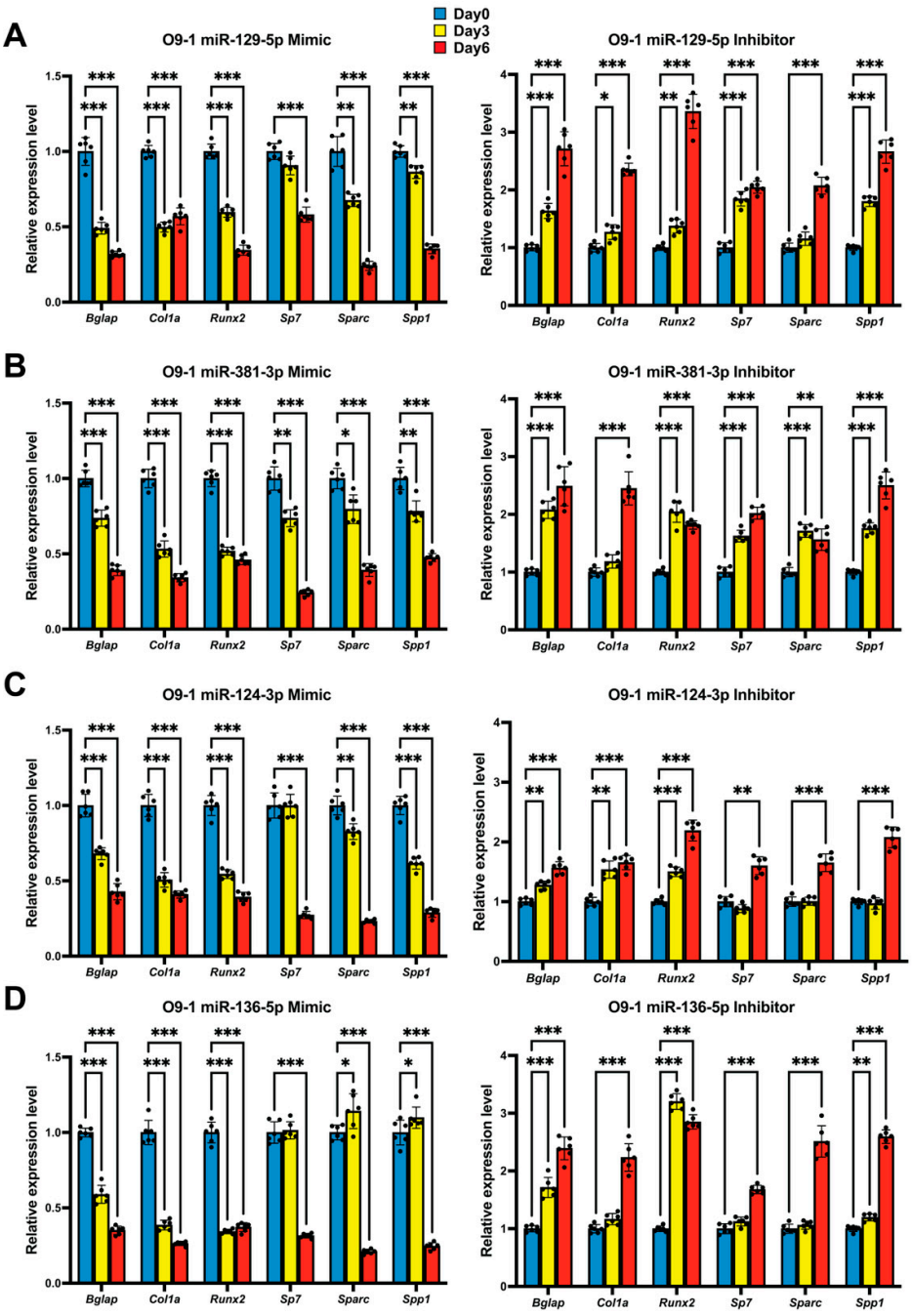


Figure S3. Osteogenic gene expression during osteogenic differentiation in O9-1 cells treated with mimic or inhibitor. Quantitative RT-PCR analysis for osteogenic genes in O9-1 cells (A-D) treated with mimic (left panels) or inhibitor (right panels) for either miR-129-5p (A), miR-381-3p (B), miR-124-3p (C), or miR-136-5p (D) at Day 0 (blue bars), Day 3 (yellow bars), and Day 6 (red bars). *p < 0.05, **p < 0.01, and ***p < 0.001. Each group was compared to Day 0.

Table S1. Primers used in this study.

Gene	Forward	Reverse
Adamts6	CCTGCTGTGATAGATGGGACAC	ACCACAGACTCGGCACCTATCT
Apaf1	CCCCAGAGGCCGGTTATTTT	CAGAGACCTTGGGTGTTTGC
Arid5b	CCCTTGGCGACTTTTTCTTTGTA	TCTTCCCCGAGATCAGCTTTTT
Asph	AACGACCTTGGCGTAGGATACC	GTTCTGTGCCTTCAGGATGAAGC

Bmp2	GACCCGCTGTCTTCTAGTGT	ACGGCTTCTTCGTGATGGAA
Bpnt2	CCGCAAGATGTTCTACCTGCTC	GGATGTCCTCAGGAATCTTCCG
Cbfb	CAAACACGCTTCCAGAACGCCT	GGCTAGGTGTTTGTCGCTGTTC
Cdc42	GATTGGTGGAGAGCCATACACTC	TGAGGATGGAGAGACCACTGAG
Col27a1	TGTGTCGGGAGATCCTGGCTTC	CCAAGTGATCCTTTGTCTCCAGC
Dlx5	TACTGCTCTCCTACCTCTGCTT	CAGATTTTCACCTGTGTTTGCGT
Dnmt3b	TGCCAGACCTTGGAAACCTC	ATCTCCTGTCATGTCCTGCG
Ednra	ATGGTCAACAGGAGGAACGG	TGCCAGGTTATTGCCGATGT
Frem1	AACGGCTGTTGCTACGATGGAC	CTGAGAAGCCTTCATCCACTGTG
Gas1	ACTGCGGCAAGCTTTTCAACGG	CTCTTTGACCGATTCGCAGATGG
Gata3	CCTCTGGAGGAGGAACGCTAAT	GTTTCGGGTCTGGATGCCTTCT
Gli2	ACACTGTGGAGGACTGCCTACA	GGCATCTCCATGCCACTGTCAT
Gnas	CCATTGAGATGCGAGAGCAGAAG	GGTGCTTTTGCCAGACTCTCCA
Golgb1	ATCAGGAGATTACACTGACTGGA	GAGCATCCTCTTGCGTGGATT
Gtf2i	CCTCGTGGTATGGAATCCCAAG	GTGTTTGTCCGTGGCTGAGTCA
Gtf2ird1	GACTGCCTGAAGGCATCTCTCT	CTTTGACACCGTCAGTGAGCAG
Gusb	GGAGGTACTTCAGCTCTGTGAC	TGCCGAAGTGACTCGTTGCCAA
Hesx1	TTTCAGCCTCCGAAACACGCTC	TGCCAGGGTAGCAGTTCACTCT
Jag1	TGCGTGGTCAATGGAGACTCCT	TCGCACCGATACCAGTTGTCTC
Kmt2a	CGATGACAACCGACAGTGTGCA	GCTGACCACAAAGCACAGTTCAC
Lmna	GAGCAAAGTGCGTGAGGAGTTC	CCTTGGAGTTGAGAAGAGCCTC
Lpar1	GGACACCATGATGAGCCTTCTG	TCTCATAGGCCAGGACATCGCA
Mapk1	TCAAGCCTTCCAACCTCCTGCT	AGCTCTGTACCAACGTGTGGCT
Mdga2	CAAGAGAAGCCTTGGTGCAGCT	CAGCACTCGTATTGGATAGGCTC
Nek1	GGTTCTCCATCAAAGCAGCAGG	TAGCCTACGCAGGATTTCTCGC
Nipbl	GTCGTTACCGAAACCGAAGTCC	GGCGTTAGCTTTGGCTCGTAAG
Nisch	CAGCCTCTCATCCACGGATAGT	TCCTGGCACATCCCTCAGATCA
Opa3	GCCAACCGTATCAAGGATGCTG	CTCCTCATTCAGTGGCTTGATGG
Otx2	TGAGGGAAGAGGTGGCACTGAA	GCCTCACTTTGTTCTGACCTCC
Pdgfra	TCAGAGAGAATCGGCCCCA	AGGACGAATTCAGCTGCACA
Pds5b	ACAAGGACCAACGATGGGAAAA	AACCCATGCAATGTTCTCAAGTAA
Pfas	GACGTGTTTTTCGGAGACTACA	TGGAGTCGAGAAATTCAGCCT
Phex	CTGGCTGTAAGGGAAGACTTCC	GCTCCTAAAAGCACAGCAGTGTC
Pkdcc	CCTCTACAATGCCTACAGGTTCTT	TGAGCATGGCTCTCACAGAC
Prickle1	AACAGCTCCTGTACCAGTTGCC	CTTCCTCTGAGCACTGAACACC
Ror2	TGAAGAATGATGCCCCGGTT	AAGGCAGCTGTGATTCGGTTT
Rreb1	TCGATTCCTGCTGGCTTCCATG	GCCGTAGGTTTGTCTCACACCA
Rspo2	GGTCTGGAAACCAGAACACGG	GAAGACGCTGTGCTGCTCTTG
Serpinh1	TGAGGTCACCAAGGATGTGGAG	ATGAAGCCACGGTTGTCCACCA
Sh3pxd2b	TCCTCGCCGAGACATGACCATT	GTCTGGAACTCAGCGATGGTGT
Sirt1	GGAGCAGATTAGTAAGCGGCTTG	GTTACTGCCACAGGAACTAGAGG
Slc35d1	GATCATCGGAGCCTTCGTAGCT	GCACCATTTGCTGCTGTCAGGA
Sos1	GCAGCACTTTATTTGCAGTCCA	TGATGGCTAGCTGTTTCCCC
Sox9	AGCACAAGAAAGACCACCCC	ATGTGAGTCTGTTCCGTGGC
Srsf3	GATGATTACCGCAGGAGGAGTC	GAAGGATCGAGACGGCTTGTGA
Tiparp	CCAATGATTCTCAGGAGCACTTG	GTAGACAGCCTTCGTAGTTGGTC
Tnfsf11	GTGAAGACACACTACCTGACTCC	GCCACATCCAACCATGAGCCTT
Trps1	CAACCGTTCTGTGCTTTCTGGC	GTGTTGCCTTGGCAATCTGGAG
Vdr	GCTCAAACGCTGCGTGGACATT	GGATGGCGATAATGTGCTGTTGC
Wwp2	CACCTACTTCCGCTTTATCGGC	GTCGGTCTCTTGTTGAGCATCC
Bglap	AGACAAGTCCCACACAGCAG	AGGGCAGAGAGAGAGGACAG

Col1a	CCTCAGGGTATTGCTGGACAAC	CAGAAGGACCTTGTTTGCCAGG
Runx2	CGGACGAGGCAAGAGTTTCA	GGATGAGGAATGCGCCCTAA
Sp7	TAGTGAGCTTCTTCCTCAAGCA	GCCTGACTCCTTGGGACC
Sparc	GCCTACCACAAGGCAAGGAA	CAGGTACCCCTGTCTCCTCC
Spp1	AGTGACTGATTCTGGCAGCTC	ATTGCTTGGAAGAGTTTCTTGCT
Gapdh	AACTTTGGCATTGTGGAAGG	ACACATTGGGGGTAGGAACA