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Supplemental information

miR-26a attenuates colitis and colitis-associated cancer by targeting the multiple intestinal inflammatory pathways

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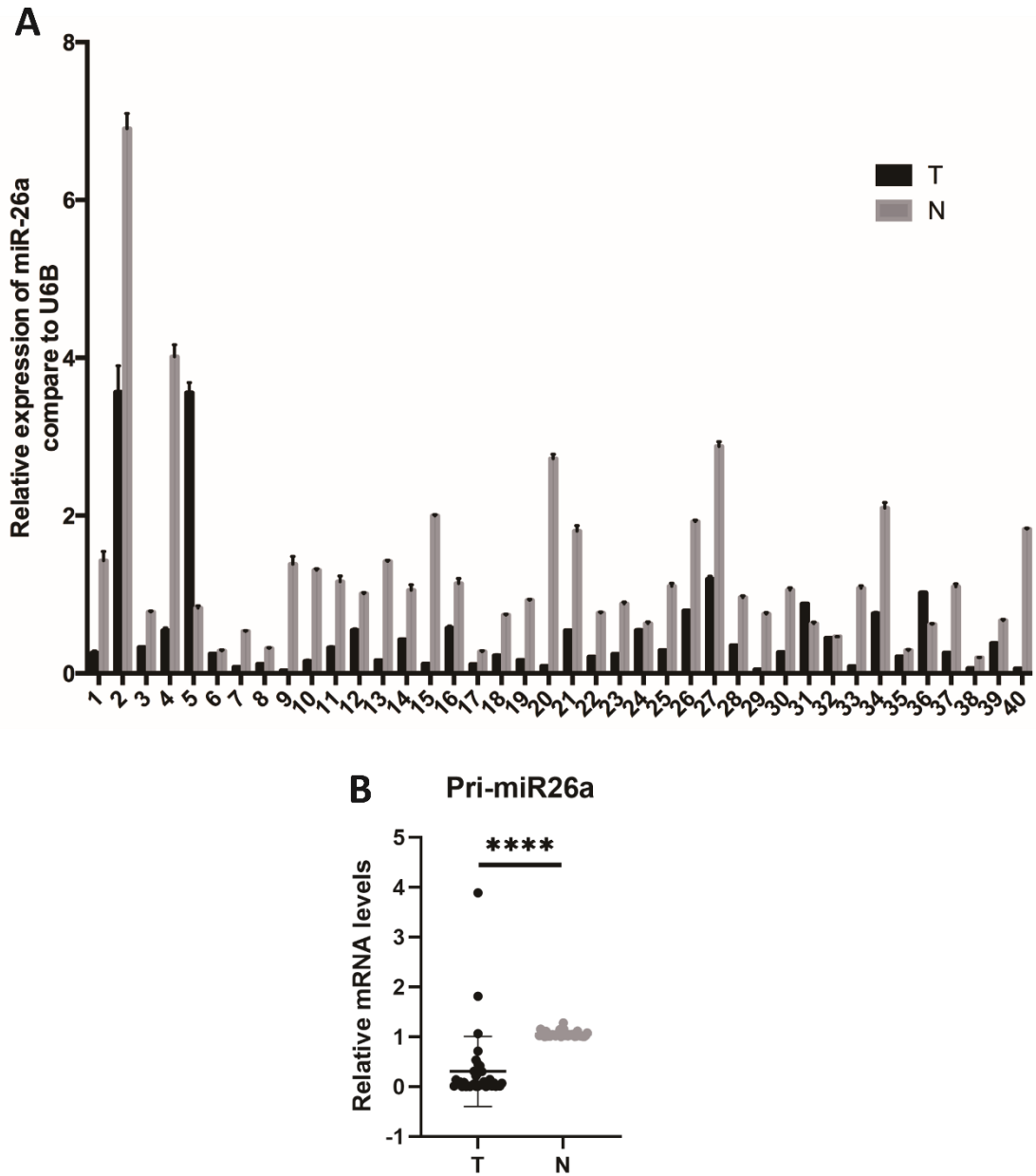


Fig S1. miR-26a is downregulated in human colorectal cancer samples.

(A) The expression of miR-26a in colorectal cancer and adjacent normal tissues from 40 patients was examined by qPCR. miR-26a was downregulated in 37 tumor samples (all samples except #5, #31, and #36) compared with the corresponding adjacent normal tissues. (B) The expression level of Pri-miR26a in colorectal cancer and adjacent normal tissues from 40 patients were determined by qPCR. T: tumor; N: non-tumor. ****P<0.0001.

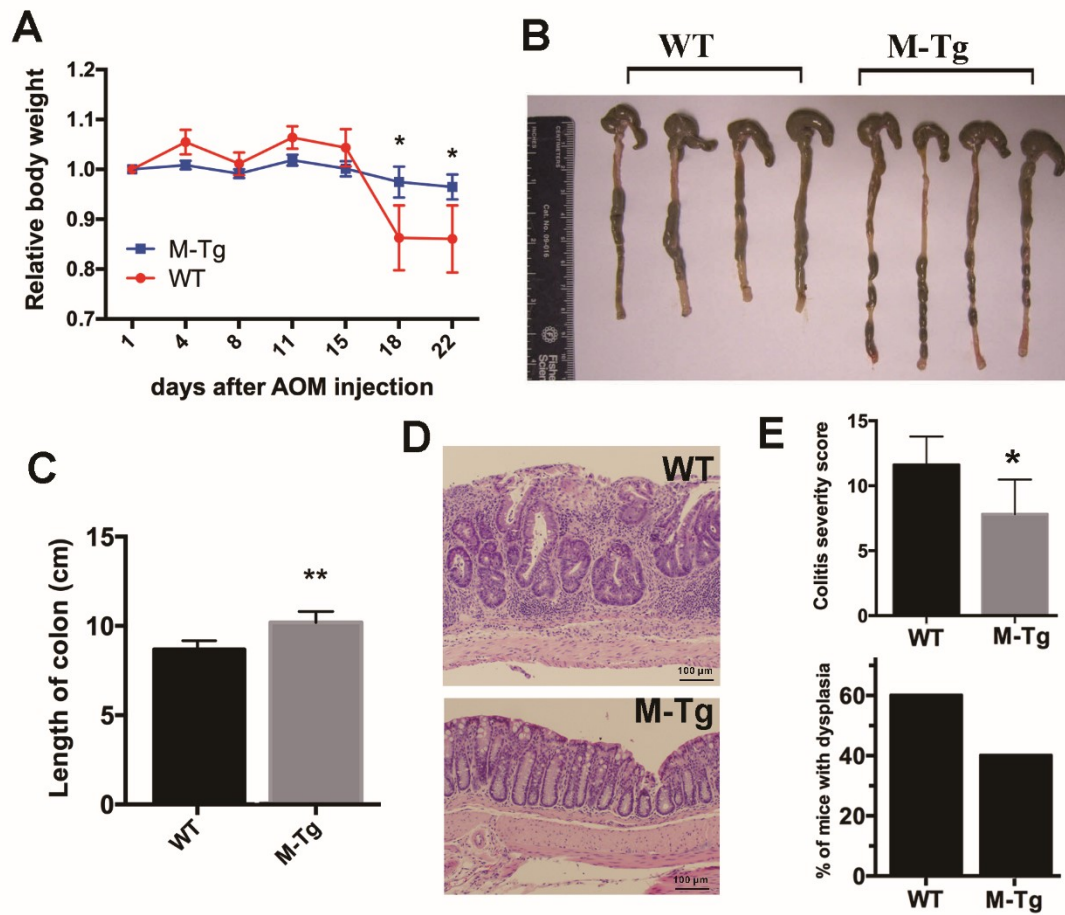


Fig S2. miR-26aTg plays a protective role in AOM/DSS-induced tumorigenesis.

M-miR-26aTg mice and their WT littermates were injected with AOM (10 mg/kg), and 7 days later, mice were challenged with 1% DSS provided in the drinking water for 7 consecutive days, followed by standard drinking water. **(A)** The body weight was measured every 4 days until the mice were sacrificed. **(B-C)** Mice were sacrificed on day 22 for colon length measurement. **(D)** Representative images of H&E-stained colon sections. **(E)** H&E-stained colon sections were scored as described in the Materials and Methods section and classified as dysplasia or adenocarcinoma. Data with error bars are presented to indicate the mean \pm SD values. * $P < 0.05$, ** $P < 0.01$.

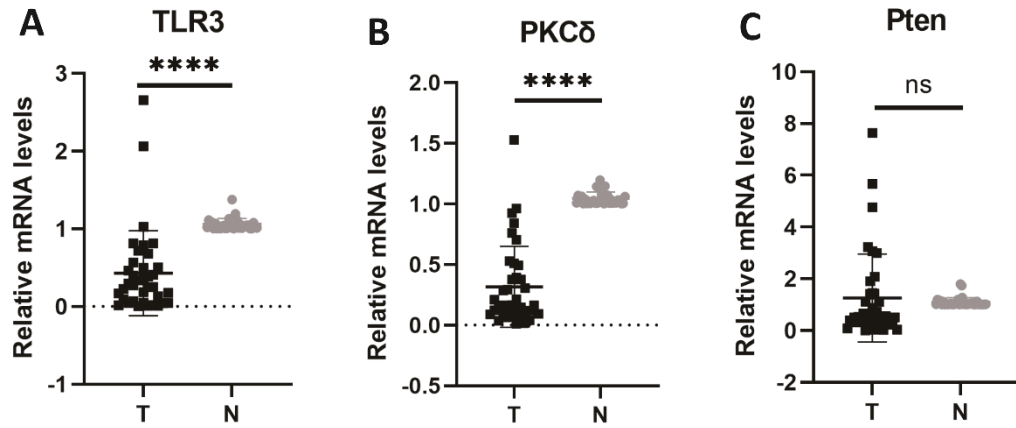


Fig S3. TLR3 and PKCδ were downregulated in human colorectal cancer samples.

The expression level of TLR3 (A), PKCδ (B) and Pten (C) in colorectal cancer and adjacent normal tissues from 40 patients were determined by qPCR. T: tumor; N: non-tumor. ****P<0.0001.

Table S1. Primers used for qPCR.

Gene name	Primer
miR-26a (mouse)	F: 5'- UUCAAGUAAUCCAGGAUAGGCU-3' R: 5'-CATGATCAGCTGGGCCAAGA-3'
miR-26a (human)	F: 5'-CATGATCAGCTGGGCCAAGAAGCCTATCCTGG-3' R: 5'-CATGATCAGCTGGGCCAAGA-3'
Pri-miR26a (human)	F: 5'-CGTGGCCTCGTTCAAGTAATC-3' R: 5'-AACCAAGAATAGGCCCATTTGG-3'
MIP2 (mouse)	F: 5'- CCAAGGGTTGACTTCAAGAAC-3' R: 5'- AGCGAGGCACATCAGGTACG-3'
TNF α (mouse)	F: 5'-AGGGTCTGGGCCATAGAACT-3' R: 5'-CCACCAGCTCTTCTGTCTAC-3'
IL1b (mouse)	F: 5'- GTGGCTGTGGAGAAGCTGTG-3' R: 5'- GAAGGTCCACGGGAAAGACAC-3'
ICAM1 (mouse)	F: 5'- TGTTTCCTGCCTCTGAAGC-3' R: 5'- CTTCGTTTGTGATCCTCCG-3'
KC (mouse)	F: 5'- CAATGAGCTGCGCTGTCAGTG-3' R: 5'- CTTGGGGACACCTTTTAGCATC-3'
IL6 (mouse)	F: 5'-GTATGAACAACGATGATGCACTTG-3' R: 5'-ATGGTACTCCAGAAGACCAGAGGA-3'
MCP1 (mouse)	F: 5'- ACCACAGTCCATGCCATCAC-3' R: 5'- TTGAGGTGGTTGTGGAAAAG-3'
GSK3 β (mouse)	F: 5'- GGTGAATCGAGAAGAGCCAT-3' R: 5'- CTCCTGAGTCACAAAGTTTG-3'
TLR3 (mouse)	F: 5'- CCCCTTTGAACTCCTCTTC-3' R: 5'- TTTCGGCTTCTTTTGATGCT-3'
TLR3 (human)	F: 5'-TTGCCTTGTATCTACTTTTGGGG-3' R: 5'-TCAACACTGTTATGTTTGTGGGT-3'
PTEN (mouse)	F: 5'- CTGGTGTAATGATATGTGCA -3' R: 5'- AACGGCTGAGGGAACTC -3'
PTEN (human)	F: 5'-TGGATTCCACTTAGACTTGACCT-3' R: 5'-GGTGGGTATGGTCTTCAAAGG-3'
PKC δ (mouse)	F: 5'-GCTCCCTGCAAGTTGAGGAC R: 5'-ACACGGCCTTCATAGATGTGG
PKC δ (human)	F: 5'-AACCATGAGTTTATCGCCACC-3' R: 5'-AGCGTTACATTGCCTGCATTT-3'
β -actin (mouse)	F: 5'- AGAAGGAGATCACTGCCCTGGCACC -3' R: 5'- CCTGCTTGCTGATCCACATCTGCTG -3'