

Figure S1. circ_0004662 expression in CRC samples. (A) circ_0004662 and (B) circ_0078541 expression in para-cancerous and CRC tissue. CRC, colorectal cancer; circ, circular; ANT, adjacent normal tissue; ns, not significant.

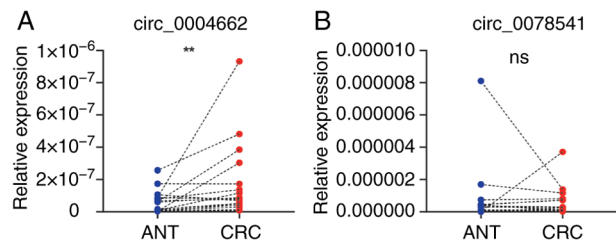


Figure S2. Biological effect of circ_0004662 in SW480 cells. (A) Knock down efficiency of circ_0004662 was measured by reverse transcription-quantitative PCR. (B) Migratory ability of circ_0004662-knockdown SW480 cells was assessed using wound healing assay. Scale bar, 100 μ m. * P <0.05, ** P <0.01, *** P <0.001 vs. NC group. circ, circular; ns, not significant; sh, short hairpin; NC, negative control.

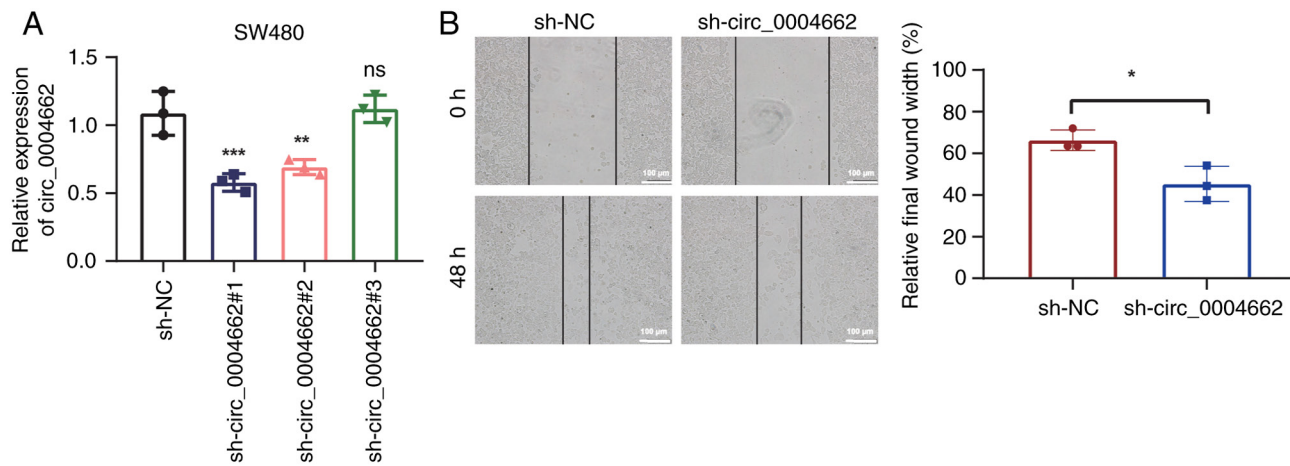


Figure S3. Sanger sequencing of translation expressing vectors. (A) Characterization of (A) circ_0004662-overexpressing vector. (B) Characterization of circ_0004662-overexpressing vector containing 3X Flag tag. (C) Characterization of circ_0004662-overexpression vector containing 3X Flag tag, with ATG mutation. (D) Characterization of vectors containing 3X Flag tag with deletion of circular elements (negative control that cannot form circRNA). (E) Characterization of vectors whose predicted full-length ORF without a cyclic framework, allowing normal translation and generating predicted peptides (positive control), circ, circular.

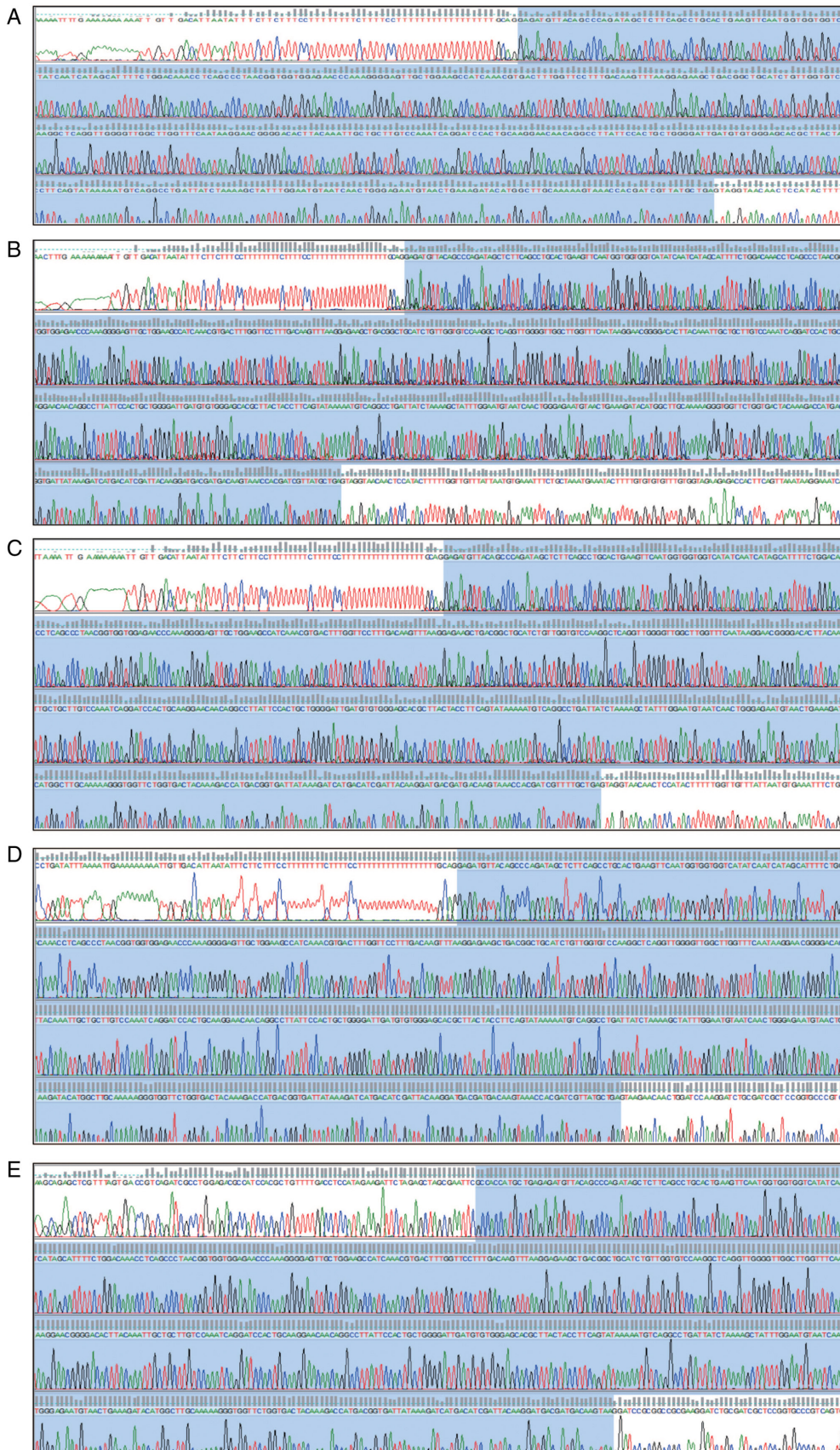


Figure S4. MS2 tagging system used to identify RNA binding proteins binding with circ_0004662. (A) Back-splicing sites of circ_0004662 and circ_0004662-MS2 detected via Sanger sequencing. (B) Detection of hnRNPM, PGK1 and S100A9 of MS2 system products via western blotting. circ, circular; hnRNPM, heterogeneous nuclear ribonucleoprotein M; PGK, phosphoglycerate kinase.

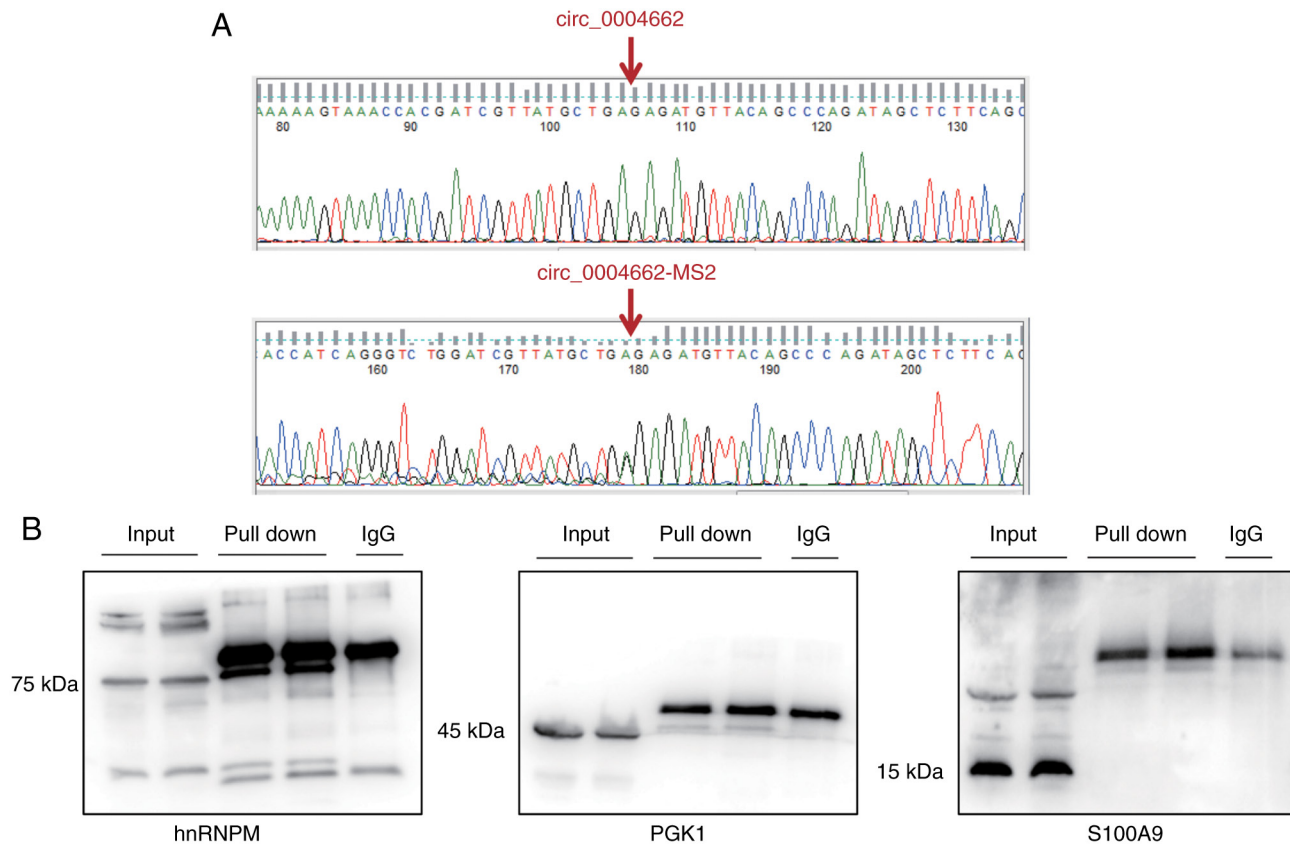


Figure S5. Interference efficiency of hnRNPM in DLD-1 cells. ** $P < 0.01$ vs. NC. hnRNPM, heterogeneous nuclear ribonucleoprotein M; si, small interfering; NC, negative control; ns, not significant.

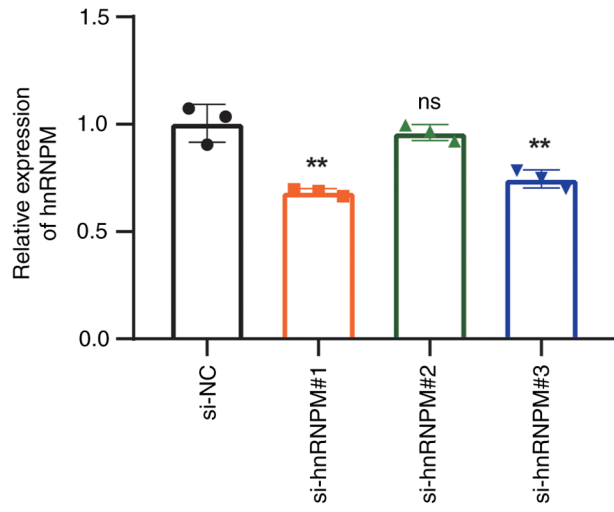


Figure S6. hnRNPM binds circ_0004662 and regulates its expression, mediating CRC progression. circ_0004662 does not translate to a 149 aa peptide. hnRNPM, heterogeneous nuclear ribonucleoprotein M; circ, circular; CRC, colorectal cancer; aa, amino acid; SOD, superoxide dismutase.

