

Figure S1. Prediction of m⁶A modification sites in ZFPM2-AS1, and the effects of various transfections on KIAA1429 and ZFPM2-AS1 expression levels. (A) The m⁶A modification sites in ZFPM2-AS1 were predicted using the SRAMP online tool. The table presents the positions of the predicted RRACH motifs in the query sequence, along with their flanking sequences and prediction scores. SRAMP predicted 3 high-confidence (95% specificity), 1 moderate-confidence (90% specificity), and 2 low-confidence (85% specificity) m⁶A modification sites. The figure below the table shows the distribution of the predicted m⁶A sites in the ZFPM2-AS1 sequence. (B) Western blotting and (C) RT-qPCR analysis of 143B and MG63 cells following transfection with oeKIAA1429 show that KIAA1429 protein and ZFPM2-AS1 expression levels were significantly increased. **P<0.01 and ****P<0.0001 vs. vector. RT-qPCR analysis of (D) 143B and (E) MG63 cells reveals that ZFPM2-AS1 was successfully knocked down following transfection with siZFPM2-AS1. *P<0.05 vs. shNC. All data are presented as the mean ± SD from three independent experiments. m⁶A, N⁶-methyladenosine; ZFPM2-AS1, friend of GATA family member 2-antisense 1; RT-qPCR, reverse transcription-quantitative PCR; oeKIAA1429, KIAA1429 overexpression; siZFPM2-AS1, siRNA targeting ZFPM2-AS1; siNC, negative control siRNA; siRNA, small interfering RNA.

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#	Position	Sequence context	Score(binary)	Score(knn)	Score(spectrum)	Score(combined)	Decision
1	579	CCUUA UGGGC AUUCA GAUCC AA <u>ACU</u> ACUUG CAACU GUAGA CAAGG	0.444	0.442	0.758	0.569	m ⁶ A site (Moderate confidence)
2	613	UGUAG ACAAG GAGGA AGAUG GA <u>ACU</u> UGGAG AAGAC AUACA GGCUG	0.633	0.684	0.614	0.628	m ⁶ A site (High confidence)
3	624	AGGAA GAUGG AACUU GGAGA AG <u>ACA</u> UACAG GCUGA AGAAA AAAAA	0.436	0.633	0.680	0.543	m ⁶ A site (Low confidence)
4	750	UGAAA AGAGG AUCAC CAAAG AA <u>ACU</u> UGGGG AAUUA CACAC UAAUA	0.548	0.766	0.721	0.628	m ⁶ A site (High confidence)
5	780	AAUUA CACAC UAAUA GUGAA GA <u>ACA</u> GGUGG CACCU GAAAU CACAG	0.489	0.45	0.609	0.535	m ⁶ A site (Low confidence)
6	833	UUUGU CCUCA AUGCA AAGAU GA <u>ACU</u> AUGAA GAGCA CUUUA UUGCG	0.639	0.706	0.592	0.623	m ⁶ A site (High confidence)

