

Methylation guide RNAs without box C/D motifs

Jiayin Wang, Zuxiao Yang, Keqiong Ye

Supplementary Materials

Figure S1

Table S1

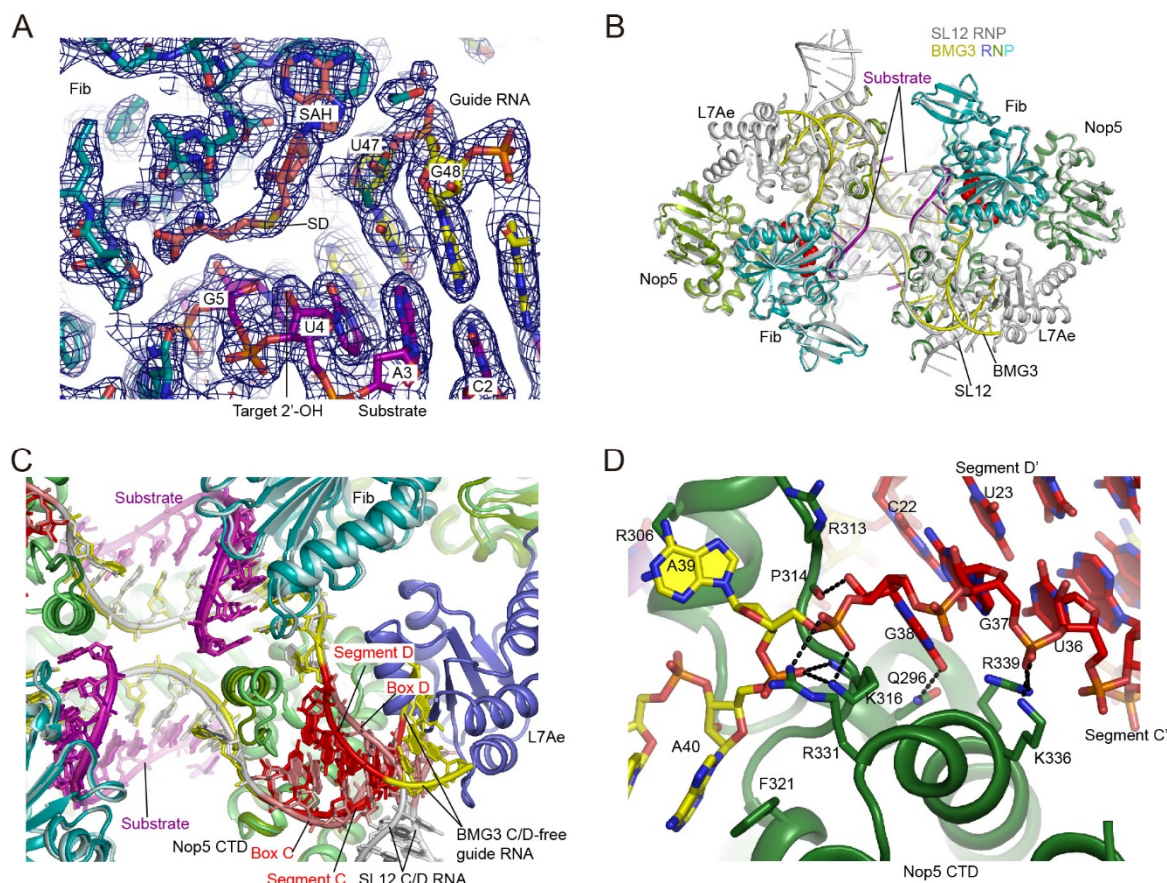


Figure S1. Crystal structure of BMG3 RNP.

(A) The $2f_o - f_c$ density map contoured at a 1.5σ level showing the active site of fibrillarin. (B) Structural alignment of SL12 RNP and BMG3 RNP. All components of SL12 RNP are colored silver. In BMG3 RNP, two Nop5 molecules are colored in forest green and split pea, Fib in teal, guide RNA in yellow and substrates in purple. (C) Structural alignment of SL12 RNP and BMG3 RNP showing the RNA-protein binding interfaces. The two structures are colored as in Fig. 2C and 2D. (D) Detailed interactions between BMG3 RNA and Nop5 at segments C'/D'. Hydrogen bonds are denoted by dashed lines.

Table S1. Statistics of data collection and structural refinement

	BMG3 RNP
<i>Data collection</i>	
Space group	P1
Cell dimensions	
a, b, c (Å)	68.088, 76.185, 98.201
α, β, γ (°)	92.856, 94.084, 112.913
Wavelength (Å)	0.97915
Resolution range (Å)	50-2.21 (2.25-2.21)
Unique reflections	87481 (4361)
Redundancy	3.7(3.5)
$\langle I \rangle / \langle \sigma(I) \rangle$	11.73 (2.02)
Completeness (%)	97.5(97.1)
R_{merge}	0.134 (1.136)
CC1/2	(0.561)
CC*	(0.848)
<i>Structure refinement</i>	
Resolution range (Å)	41.7-2.213 (2.268-2.213)
No. reflections	87431 (5917)
No. atoms	11518
Protein	9690
RNA	1523
Ligand	52
Water	253
R_{work}	0.190 (0.288)
R_{free}	0.236 (0.347)
Mean B (Å ²)	50.79
Rmsd bond length (Å)	0.008
Rmsd bond angles (°)	1.010
Ramachandran plot	
Favored (%)	97.01
Allowed (%)	2.91
Outliers (%)	0.08

Note: Data in parentheses represent values of the highest resolution shell.