

Figure S1: HE staining of female genital ridges at 12.5dpc and ovaries at 7 dpp. (A) 12.5dpc with the magnification of 100x, (B) 12.5dpc with the magnification of 200x, (C) 7dpp with the magnification of 100x, (D) 7 dpp with the magnification of 200x.

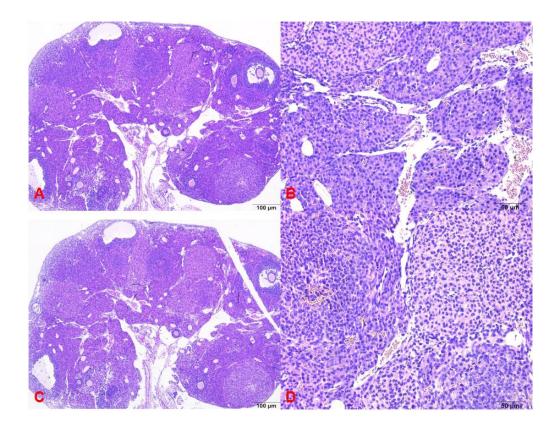


Figure S2: HE staining of ovaries at luteal phase. (A and C) with the magnification of 100x, (B and D) with the magnification of 200x.

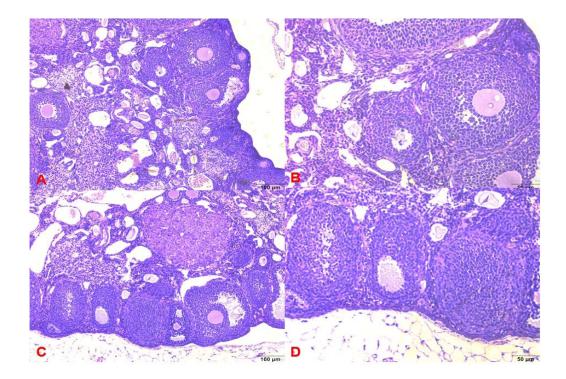


Figure S3: HE staining ovaries at follicular phase. (A and C) with the magnification of 100x, (B and D) with the magnification of 200x.

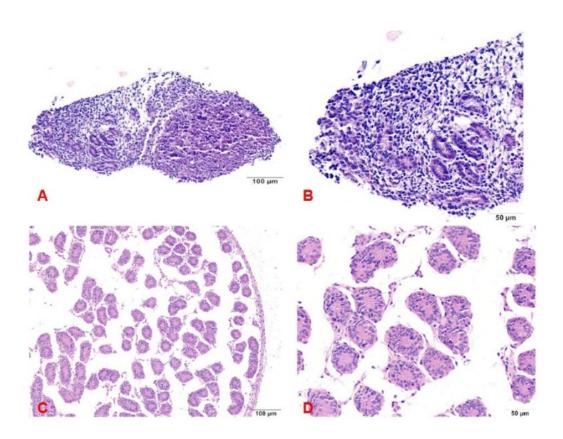


Figure S4: HE staining of male genital ridges at 12.5dpc and testes at 7 dpp. (A) 12.5dpc with the magnification of 100x, (B) 12.5dpc with the magnification of 200x, (C) 7dpp with the magnification of 100x, (D) 7 dpp with the magnification of 200x.

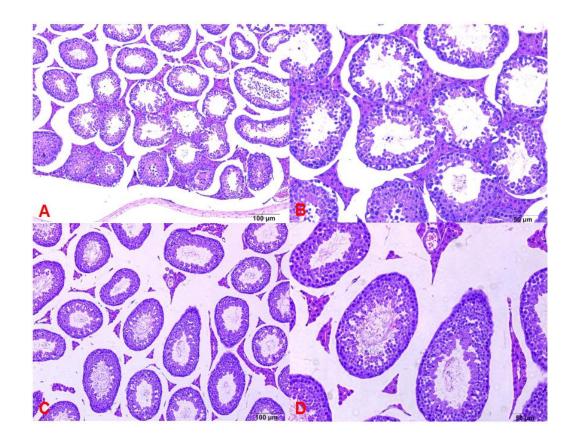


Figure S5: HE staining of adult mouse testes (49 dpp). (A and C) with the magnification of 100x, (B and D) with the magnification of 200x.

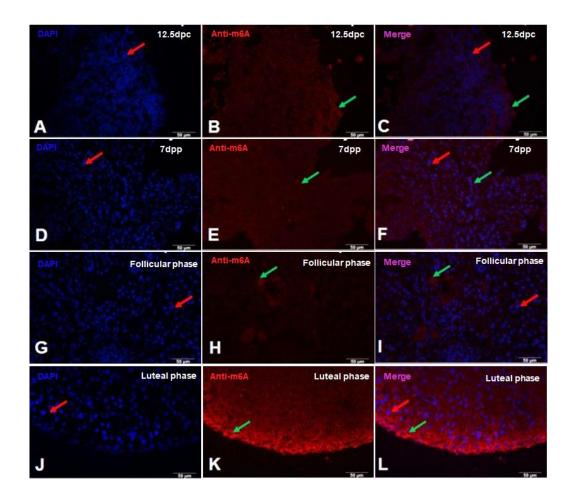


Figure S6: Immunofluorescence patterns of m6A in genital ridge/ovary of female mice at different stages. (A-C) 12.5 dpc. (D-F) 7 dpp. (G-I) Follicular phase. (J-L) Luteal phase. Blue: DNA, Red: m6A. n=12.

Figure S7

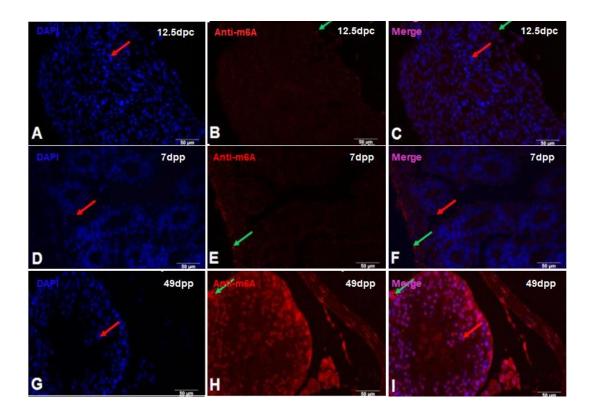


Figure S7: Immunofluorescence patterns of m6A in genital ridge/testis of male mice at different stages. (A-C) 12.5 dpc. (D-F) 7 dpp. (G-I) Adult stage. Blue: DNA, Red: m6A. n=12.

Figure S8

Compound:A				Compound:m6A			
Sample Name	Std.Conc	RT	Area	Sample Name	Std.Conc	RT	Area
A1	1	1.89	680.318	1.1	0.01	3.06	0.857
A2	2	1.90	1673.256	m6A2	0.02	3.07	1.545
А3	5	1.89	3871.571	m6A3	0.05	3.05	32.678
A4	100	1.89	8156.543	m6A4	1	3.07	108.547
A5	200	1.91	14405.952	m6A5	2	3.08	302.008
A6	500	1.90	34962.227	m6A6	5	3.06	677.543
A7	1000	1.90	64940.777	m6A7	10	3.06	1462.245

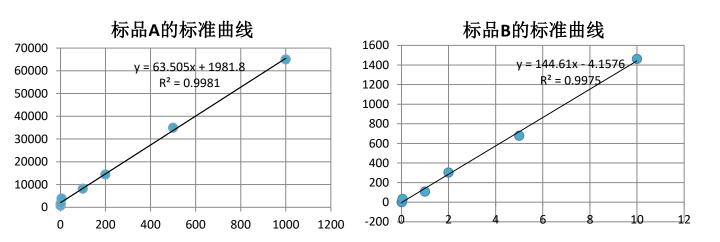


Figure S8: Mass Spectrometry determination and standard curve construction of A and m6A. Std: the Measured Concentration, RT: the Peak Time, Area: the Peak Area, n=6.