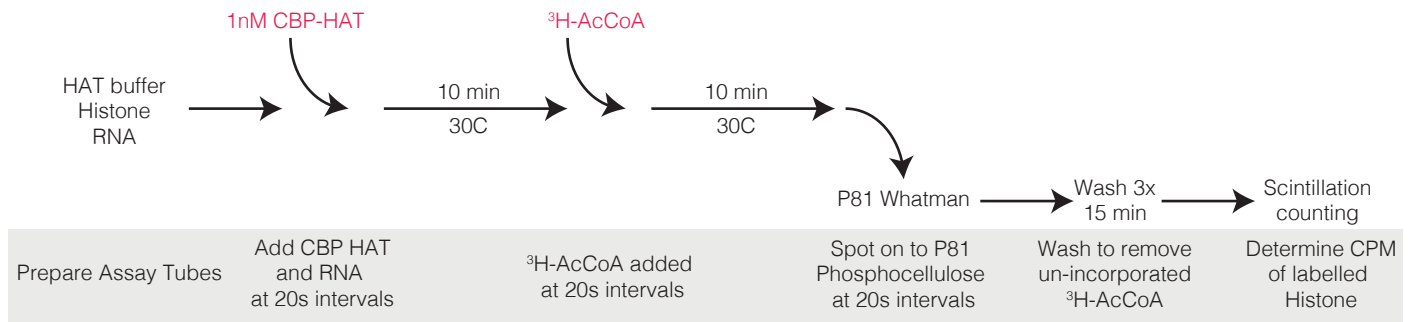


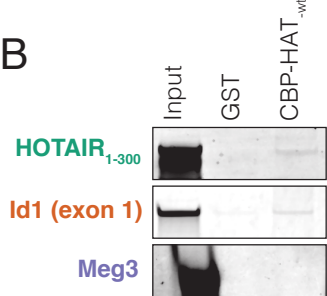
# Figure S5

Radiolabelled Filter Binding HAT assay-  $^3\text{H}$ -AcCoA

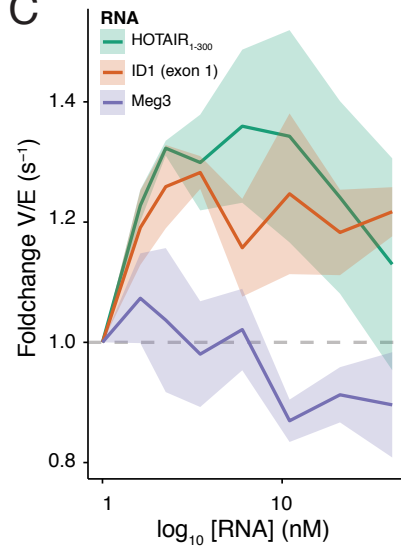
**A**



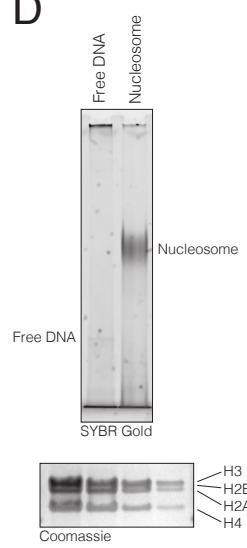
**B**



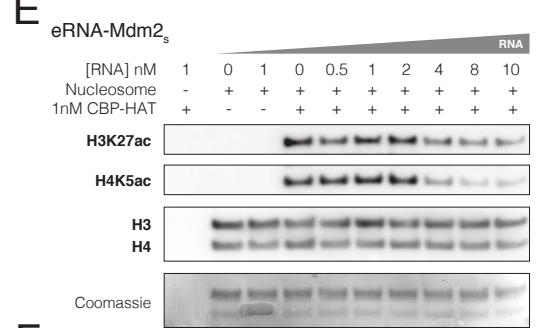
**C**



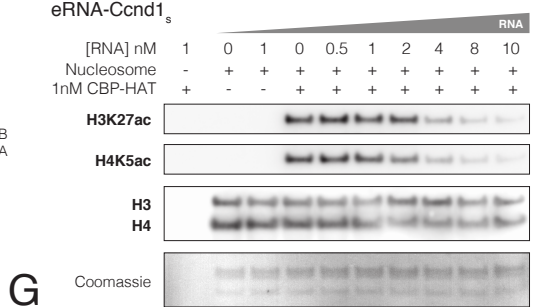
**D**



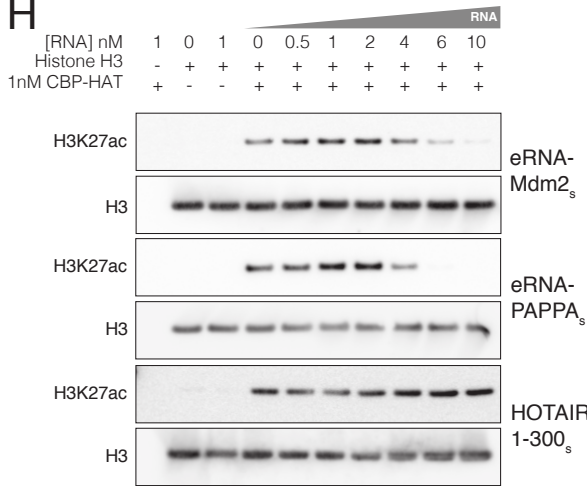
**E**



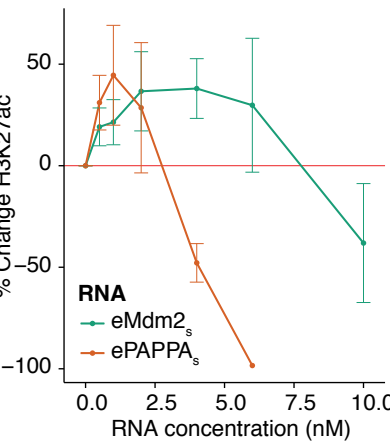
**F**



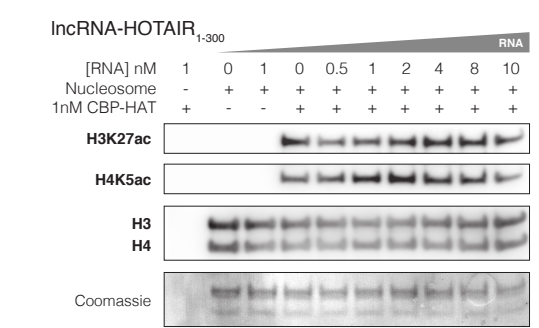
**H**



**I**



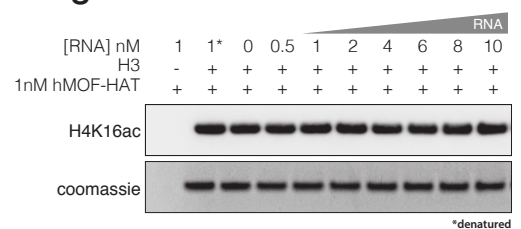
**G**



**K**

| CBP-HAT     | eRNA     | $K_m(\text{H3-1-21})$ ( $\mu\text{M}$ ) | $K_{cat}$ ( $\text{s}^{-1}$ )          | $K_{cat}/K_m$ ( $\text{M}^{-1}\text{s}^{-1}$ ) |
|-------------|----------|---|--|--|
| wt          | 0nM RNA  | 44.55 +/- 3.99<br>( $p=0.0001$ )        | 0.409 +/- 0.014<br>( $p=7.97e^{-07}$ ) | 9186.2<br>+/- 1102.3                           |
| wt          | 10nM RNA | 26.42 +/- 3.55<br>( $p=0.0007$ )        | 0.303 +/- 0.013<br>( $p=2.86e^{-06}$ ) | 11459.8<br>+/- 1948.2                          |
| mutant loop | 0nM RNA  | 27.30 +/- 5.65<br>( $p=0.0473$ )        | 0.714 +/- 0.048<br>( $p=2.52e^{-05}$ ) | 26139.5<br>+/- 7057.7                          |
| mutant loop | 10nM RNA | 27.96 +/- 8.97<br>( $p=0.0263$ )        | 0.499 +/- 0.052<br>( $p=2.18e^{-04}$ ) | 17829.7<br>+/- 7488.5                          |

**J**



**L**

