A dual flip-out mechanism for 5mC recognition by the Arabidopsis SUVH5 SRA domain and its impact on DNA methylation and H3K9 dimethylation in vivo

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[1]S . B P , S -K . . C C . , Y , Y 10065, USA; [2]D . .

R , , SET- RI G- - , (SRA) , , , / , D A , - , . I *A* *p*^{s} *s*, D A , , (SET- ,) SRA , , SU(VAR)3-9 HO OLOG 2 (SUVH2) SUVH9, , , , , , D A , CG CHH , , , (J , . 2008). T , , , , DR 2 , , , , DR 2 , , . A , SRA - , , RI G- , VARIA T I ETHYLATIO (VI)/ORTHRUS (ORTHUS) , , - , D A , , , , CG , , (W , . 2007, 2008; K , , . 2008; F , . 2010), , SRA VI 1/ORTH2 VI 3/ORTH1 , , , CG , (J , . 2007; W , . 2007). T ,

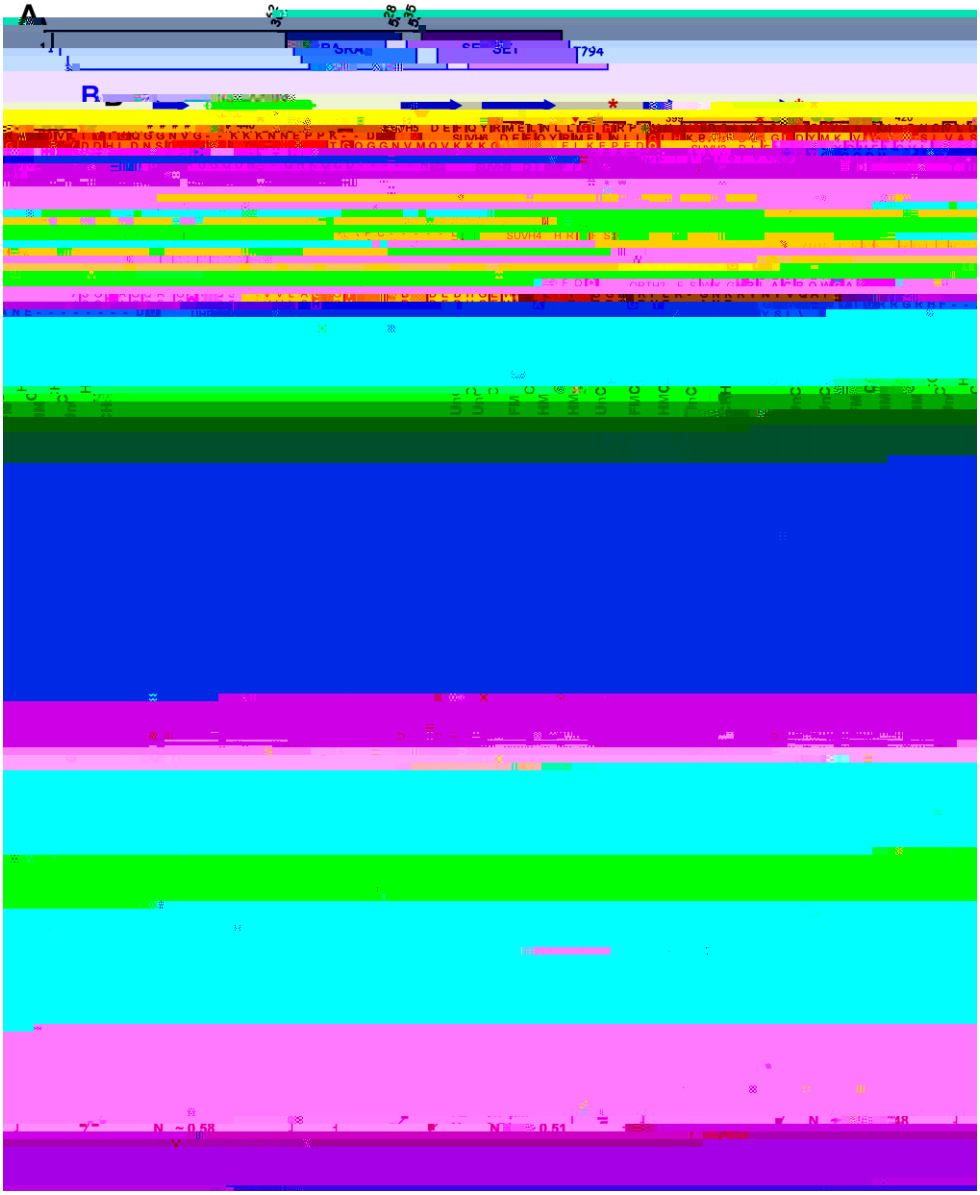

Figure 1.

SUVH5 SRA ITC

K_D

H3K9 SUVH5 (S F . S6C). T SRA SUVH5 SUVH5, H T .

Discussion

SUVH5 SUVH SRA D A CG (F . 1E,F,), CHH CHG (F . 1G; S F . S3,). I SUVH5 SRA D A . W SUVH5 SRA CHG D A. T D A SUVH5 SRA D A H3K9 .

D pp 5 C/C p s p s s

B .H I (K . 1994) H III (R . 1995) CG- D A, D A- R A- (H . 2005). A W SUVH5 SRA CG D A (F . 2A) 5 C , SRA D A . B ITC - (F . 1E) (F . 2B) SRA CG D A , 5 C SRA-

. F , , , , , (S , F . S7C) , , , , (ALS) (S , F . S7D,E) , , SUVH5 SRA , D A

CG (F . 1B), UHRF1, VI - CG .

T KR SET- SUVH , SUVH4, , UHRF1, SUVH4 - , D A. F , A 417A SUVH5, SUVH4 SUVH5 ( ). I SUVH5 SRA D A , - - 5 C, . T , SUVH4 D A - UHRF1 SUVH .

s s s s sp

A - 5 C SRA (A . 2008; A . 2008; H . 2008) 5 C D T (K . 1994; R

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F . J.A.L. I
H R S A (5F32G 820453).
S.E.J. D.R. H H
I . W R
I H (G 064844
R37G 037120). P.V. D A
L (L F P ,
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