

Figure S1 The H3K27me status on the *dE2f1*gene (**A**; Region surveyed: 3R:17444026..17488127) during the white prepupal (WPP) stage (**B**) and in *Drosophila* SL2 (**C**), Kc (**D**) and BG3 (**E**) cells. These results are obtained from the ChIP-chip and ChIP-Seq data sets provided by Drs. Gary Karpen, Vincenzo Pirrotta, and Kevin White laboratories from the modENCODE Project (http://modencode.oicr.on.ca/fgb2/gbrowse/fly/). Note: H3K27me3 is enriched at the *dE2f1* locus during the WPP developmental stage (**B**), and the enrichment of H3K27me1/2 in *dE2f1* locus in all the three cell lines analyzed (**C/D/E**).

ł	15730k Gene Span CycE	,
	Transcript CycE-RF	
	CycE-RE	-
	*	
		-
1	★ C C C C C C C C C C C C C C C C C	
	H3K27me1.S2	
	H3K27me2-TJ.S2	
Ì	★ ■ M B Z H B H3 Histone modifications in Kc167 cells (Showing 2 of 16 subtracks) H3K27me1.Kc	
1	H3K27me2.Kc	-
	Dia 27 HB H3 Histone modifications in ML-DmBG3-c2 cells (Showing 3 of 19 subtracks) H3K27Me3 Abcam2.BG3 1	
	H3K27me1.BG3	
1	H3K27me2 TJ.BG3	

Figure S2 The H3K27me status on the *dCycE* gene (**A**; Region surveyed: 2L:15712959..15762958) during the WPP stage (**B**) and in *Drosophila* SL2 (**C**), Kc (**D**) and BG3 (**E**) cells. Note the enrichment of H3K27me3 in *dCycE* locus during the WPP stage (**B**), and the enrichment of H3K27me1/2 in *dCycE* locus in all the three cell lines analyzed (**C/D/E**).

A	25078k Gene Span stg	25079k	25080k	25081k
	Transcript stg-RA stg-RB			
в	WPP H3K27me3	tions in Pupae (Showing 1 of 7 subtracks)		
С	H3K27Me3 Abcam2.S2	n S2-DRSC cells (Showing 3 of 23 subtracks)	p ⁴	
	H3K27me1.S2			
	H3K27me2-TJ.S2		Carles Trues	
D	H3K27me1.Kc	Kc167 cells (Showing 2 of 16 subtracks)	4	
	H3K27me2.Kc		4	
Е	H3K27Me3 Abcam2.BG3	h ML-DmBG3-c2 cells (Showing 3 of 19 subtract	εα) Γ ⁴	
	H3K27me1.BG3		r ⁴	
	H3K27me2 TJ.BG3		f4	

Figure S3 The H3K27me status on the *stg* gene (**A**; Region surveyed: 3R:25064521..25114520) during the WPP stage (**B**) and in *Drosophila* SL2 (**C**), Kc (**D**) and BG3 (**E**) cells. Note the enrichment of H3K27me3 in *stg* locus during the WPP stage (**B**), and the enrichment of H3K27me1 in *stg* locus in SL2 cells (**C**).

H3K27me3_WPP_ChIP_seq.12700 Details			H3K27me3_WPP_ChIP_seq.13914 Details		
Namo:	H3K27mo3_WPP_ChIP_soq.12700	, A	Name:	H3K27me3_WPP_ChIP_seq.13914	С
Туре:	binding_site	73	Турю:	binding_site	-
Description:			Description:		
Source:	14111_details		Source:	14111_details	
Position:	3R:1747157917472512		Position:	3R 25077969 25079907	
Length:	934		Length:	1939	
Score:	198.51		Score:	916.24	
analysis:	H3K27me3_WPP_ChIP_seq:MACS		analyzia:	H3K27me3 WPP ChiP seg MACS	
load_id:	159737658		load id:	159740157	
primary_id:	1274681		primary id:	1272363	
gbrowse_dbid:	white:database		obcompa dhist	whitevistshose	
HEREITRES MEP ChIP seq.12700 glass-Bequence position=3811747157917472512 ANCOCAMAR ACTOCARS GITCCANGE ANCACAME CARCANACE COCOCAME CANTOCINE ANALTETERE ANCOCAMAR ACTOCARS GITCCANGE ANCACAME CICCUTECAR TOCCOLTE CITIEDICET TANAATAT ACANONA COCOCAME CICCUTECAR TOCCOLTE CATTERACEAR TITEDICET GICANCECC ACCACCE COCOCCAR CONCOCIONE CATERACEAR ANCOCART CANCOCATT ANALTITE CICCUTATE GICANCECC CACACACCE COCOCCARA ANALTICE COLAMACE CACACACE COCOCCAR COCOCCARA CANCOCARC COCOCCARA ANALTICE ATTOCOCTE CICCUCACEA TOCCACAT ACATOCACE CACACACCE COCACACACE COCACACEAR COCACCACE COCACACACE ACTACCCARA CACACCCAR COCACACACEAR TOCARCINE ACTOCACATE TICCACACE TOCGAACAAT CACACCCACE COCACACACEA COCACOCCA ATTOCOCCARA TACATOCCARA CACACACCE COCACACACEAR COCACACACEAR COCACACACE ACTACCCARA CACACACEAR TOCCACCAA TACCAACEA ANACACACAAA AAAAAAAAAA CACA AOCCAA CACACACEAC CACACACEAR COCACACACEAR COCACACACACEAR COCACACACEAR COCACACACEAR COCACACACEAR COCACACACEAR COCACA			>HIRZINEJ NEP CATTALAATČ CA AACCCEAAAC CA AACCCEAAAC CA CHETCODECE TE AACCACCACTAC CA CENTODECE TE ACCACTOCACA C CONTOCACA C CACCACACAT CATCOCACATC CA CAACCACATCATC C CAACATCATC C CCACCACCAC C CCACCACTT C C CCACCACTT C CCACCACTT C C CCACCACTT C C CCACCACTT C C CCACCACTT C C CCACCACTT C C CCACCACTT C C C CCACCACTT C C C C C C C C C C C C C C C C C C	position=38:2507796925079907 TCTTTAAAH TTGAACTACA GTOCTTAAH AATTGAACTA TTAAATTCCA AATGAACTAC GTOCTTAAH AATGAACCA CIACGATA ACAAACTAA ATCAACAAA ATCAACATA AATACCATAA CAACCAAAT TAGATAACGA ACTGAACATA AATACCATAA CAACCAAAT TAGATAACGA ACTGACACTA TAGOCGOGGAT CCACCAATGC CCCAGOCAT COCCOCATOCO THOOCGOGGAT CCACCATGC CCCAGOCAT COCCOCATOC GTOCACACAA TAGATCTCGG GATACTGCAA COCCOCATOC GTOCACCATT COGTCACCAC CTCGCAGACAA ATCOCACT TGCGTCCTCCT CCACACCAC ATTCCTAGG GTAGCGACA CCTTAAGCAG CCGACCCACT GTTCCCTCG ACATOCCTT CCCCACTGG CCGCCCCACCA ATTCCTAGG GTAGCGACA CCTTAAGCAG CCGACCCACT GTTCCCTCG ACATOCCTT CCCCACTGG CCGCCCCACT TACCTCGGC TCGTCGCGAC CCTTACCACG CCGCCCCACT TACCTCGGC TCGCCTGCCG CACACCTTCCTCA GTOGCCTGCC TCGCCACGC CCTGCCGCC CACACCCCCCCACT TACCTCGGC TCGCCTGCCG CACACCCCCCCCACT TOCCTTCCC CCGCCACACGC CCTTCCCCCGC CCCCCCCCCCCCCCCCCCCCCCCC	
Туре:	binding_aite	В	TTOOCHOCHG GO	TOCTCCTT GATCTGGCCG CTGATCAGCG	ACTITAGOCC ACTGOOGAAG COCAGOCCG TETUTOOCT
Description:			ACATOCOCAA CO	TOCOCCCC COCCTCTCAT CACTTCATAC	TCCCATAGCT GCCACAATTT TCGCCTGCCG GACGATCTGC
Source:	14111_details		CICCICCICC IN	GAACGACA GCTCCTCCTC GTCCATCCTC	ATCAGTTCCA GGGAACGOCG AGCACGACGA GATCCACTCA
Position:	2L:1573562015736449		GCATCGAGGA AG	AGAGCTGC TTTTGCTTCC CTAAACTCTC	GRANEARCE ANEXEMPTORE CAREKTINET CANCTETTOE GRANEARCEE GTCATTANAC CONSCIANAA ATACTERCAN
Length:	830		ACTOCTOCTC CT	CETCOCCET TOCTOCTCEA AAAACAACAA	ARATACCOCA CARARTACAC ACADOCOTTC TTCTARTTCC
Score:	86.76				
analysis:	H3K27me3_WPP_ChIP_seq:MACS				
load_id:	159739901				
primary_id:	1267711				
gbrowse_dbid:	white database				

>H3K27me3 MPP ChIP seq.2385 class=Sequence position=2L115735620..15736469 GCCATTECX TAXOLATAC ATETECCCAM ACGGOSTAC MAATGCAM: CCACTTOCA ACMOUNT TTETATOCT CCCATCTC TECACAMECA ANTETECTCT CARTGATAT TTATTACK ACCAAMEAA AGACTATAT TTETATOCT CCCATCTC TECACAMECA ANTETECTCA ACCCTCCCT COETICCTC CONTENDOS GTITUCACTE TETECCATTC CGATACTAR AMAGEATAA ACTATECTA ACCATCACT COETICCC CONTECCA ANTECCTTA TETATATTA ACTATOCAA ATTCCATATTC TACCAGOCC CAAGCACTA ATTCCATACT CTOCCTCAGA CAACCCTCG AGAACTCCGA TITCGATATTC TACCACGCC CCAACGCGAC ATTTCCCARCAC COCTCACT TTGGAAMAC CCACCCTCG AGAACTCCGA TITCGATATTC TACCACGCC CCAAGCACTA ATTTCCTCACT CTOCCTCAGA CAACCCTCG CCACCTCCG ATTCCAATTC TACCACGC CTAAGCAATATC CTCCGCCAAC CCTTCCATCTT CTCCCTCCGCG AGAACTCCGA CTTGGATCCA AGGTCTGCG CAAGCACATTC CTCCGCCAAC CCTCCCTCCTTC TTCCCTCCT CTCCCTCCGCG AGAACTCCGA CTCCGAACTCC AGGTCTGCG CAAGCACATTC CTCCGCCAAC TCCCCAAAGAA CCCCTCCGGG AMACTCCTTA CTCCACAAC TTCCCCAAGA CAAGCAAAAACC CAAGCAAAAAA CAAGAAAAACT CAAAAAAAACT CAAAAAAAAACCCCAAAGAA AAAAAACCAAGGCAACTTATAAA TTCCCAGTAC AAACCAAGGC ACCTTATAAAA

Figure S4 The detailed results of ChIP-Seq analyses showing the enrichment of H3K27me3 in dE2f1 (A, corresponding to the peak in Fig. S1B), dCycE (B, corresponding to the peak in Fig. S2B) and stg (C, corresponding to the peak in Suppl. Fig. 3B) loci during the WPP stage. These results are obtained from the ChIP-Seq data sets provided by Dr. Kevin White laboratory from the modENCODE Project (http://modencode.oicr.on.ca/fgb2/gbrowse/fly/).

Table S1 Summary of the genetic analyses using the Exelixis Df lines.

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