

**Table S4.** Motifs enrichment in deregulated genes in estradiol treated PXVE transgenic lines

Line / expression	Motifs Identifier	No. Genes with this element	No. of elements	P value
<i>PXVE:NF-YA10</i> / induced	Non-enriched			
<i>PXVE:NF-YA10</i> / repressed	ABFs binding site	44	54	< 10 <sup>-5</sup>
	ABRE binding site	57	70	< 10 <sup>-5</sup>
	ABRE-like binding	228	392	< 10 <sup>-10</sup>
	ABREATRD22	39	42	< 10 <sup>-6</sup>
	ACGTABREMOTIFA2OSE	167	257	< 10 <sup>-10</sup>
	ATHB5ATCORE	37	76	< 10 <sup>-3</sup>
	AtMYC2 BS in RD22	254	358	< 10 <sup>-3</sup>
	CACGTGMOTIF	163	444	< 10 <sup>-10</sup>
	CARGCW8GAT	448	1488	< 10 <sup>-6</sup>
	CCA1 binding site	208	246	< 10 <sup>-3</sup>
	DRE core motif	165	192	< 10 <sup>-3</sup>
	GADOWNAT	105	139	< 10 <sup>-10</sup>
	GAREAT	390	573	< 10 <sup>-4</sup>
	GBF1/2/3 BS in ADH	22	44	< 10 <sup>-3</sup>
	GBOXLERBCS	38	46	< 10 <sup>-5</sup>
	MYB1AT	568	1354	< 10 <sup>-3</sup>
	MYCATERD1	254	358	< 10 <sup>-3</sup>
	TATA-box	631	1989	< 10 <sup>-10</sup>
	Motif TGA1 binding site	52	53	< 10 <sup>-10</sup>
	UPRMOTIFIAT	52	53	< 10 <sup>-10</sup>
W-box promoter motif	482	880	< 10 <sup>-7</sup>	
<i>PXVE:NF-YA2</i> / induced	ABRE-like binding site motif	57	92	< 10 <sup>-3</sup>
<i>PXVE:NF-YA2</i> / repressed	ABRE-like binding site motif	99	154	< 10 <sup>-6</sup>
	ACGTABREMOTIFA2OSEM	75	98	< 10 <sup>-5</sup>
	GADOWNAT	47	54	< 10 <sup>-4</sup>
	TATA-box Motif	304	967	< 10 <sup>-10</sup>
	TGA1 binding site motif	25	26	< 10 <sup>-5</sup>
	UPRMOTIFIAT	25	26	< 10 <sup>-5</sup>
W-box promoter motif	233	460	< 10 <sup>-4</sup>	
<i>PXVE:NF-YA3</i> / induced	Non-enriched			
<i>PXVE:NF-YA3</i> / repressed	ABRE-like binding site motif	91	141	< 10 <sup>-4</sup>
	ACGTABREMOTIFA2OSEM	69	92	< 10 <sup>-4</sup>
	ATHB2 binding site motif	52	56	< 10 <sup>-3</sup>
	GADOWNAT	43	50	< 10 <sup>-3</sup>
	TATA-box Motif	291	926	< 10 <sup>-7</sup>
W-box promoter motif	236	464	< 10 <sup>-6</sup>	
<i>PXVE:NF-YA7</i> / induced	CACGTGMOTIF	57	138	< 10 <sup>-3</sup>

**Table S4. Continued**

<i>PXVE:NF-YA7 /</i> repressed	ABRE-like binding	175	260	$< 10^{-6}$
	ACGTABREMOTIFA2OSE	115	150	$< 10^{-3}$
	AtMYC2 BS in RD22	259	376	$< 10^{-7}$
	CARGCW8GAT	427	1424	$< 10^{-7}$
	GAREAT	360	549	$< 10^{-3}$
	MYB1AT	530	1237	$< 10^{-3}$
	MYCATERD1	259	376	$< 10^{-7}$
	RY-repeat promoter	34	72	$< 10^{-3}$
	TATA-box Motif	605	1991	$< 10^{-10}$
	TGA1 binding site	38	39	$< 10^{-4}$
	UPRMOTIFIAT	38	39	$< 10^{-4}$
W-box promoter motif	474	877	$< 10^{-10}$	
<i>PXVE:NF-YA2SRDX /</i> induced	EveningElement promoter motif	39	45	$< 10^{-6}$
	lbox promoter motif	117	180	$< 10^{-4}$
<i>PXVE:NF-YA2SRDX /</i> repressed	ABFs binding site	43	52	$< 10^{-3}$
	ABRE binding site	58	71	$< 10^{-4}$
	ABRE-like binding	251	425	$< 10^{-10}$
	ABREATRD22	40	43	$< 10^{-5}$
	ACGTABREMOTIFA2OSE	183	275	$< 10^{-10}$
	CACGTGMOTIF	176	458	$< 10^{-10}$
	CARGCW8GAT	507	1678	$< 10^{-5}$
	DREB1A/CBF3	71	78	$< 10^{-3}$
	GADOWNAT	117	155	$< 10^{-10}$
	GAREAT	453	665	$< 10^{-5}$
	GBF1/2/3 BS in ADH	23	46	$< 10^{-3}$
	GBOXLERBCS	35	43	$< 10^{-3}$
	MYB1AT	662	1556	$< 10^{-6}$
	TATA-box Motif	726	2250	$< 10^{-10}$
	TGA1 binding site	51	51	$< 10^{-7}$
UPRMOTIFIAT	51	51	$< 10^{-7}$	
W-box promoter motif	574	1123	$< 10^{-10}$	
<i>PXVE:miR169nm /</i> induced	CARGCW8GAT	170	584	$< 10^{-3}$
	EveningElement promoter motif	42	50	$< 10^{-7}$
	GAREAT	156	245	$< 10^{-3}$
	lbox promoter motif	129	189	$< 10^{-7}$
	TATA-box Motif	238	772	$< 10^{-7}$
W-box promoter motif	184	366	$< 10^{-3}$	
<i>PXVE:miR169nm /</i> repressed	Non-enriched			

Survey was performed in 1000 bp maximum upstream range cutting off at adjacent genes. Data obtained using the Athena Web tools (<http://www.bioinformatics2.wsu.edu/cgi-bin/Athena/cgi/home.pl>).