

Table S8. Distribution of genes encoding epigenetic regulators across network modules

Function category	Gene identifier	Module	Gene acronym	Gene name	Confirmed or putative function of protein
RNA silencing	AT1G01040	Yellow	<i>DCL1/CAF1/SINI/EMB76/SUS1</i>	Dicer-like, Carpel factory, short integuments, embryo-defective, suspensor	microRNAs (miRNA) processing
Chromatin formation or chromatin remodeling	AT1G03790	Brown	<i>SOM</i>	Decreased DNA methylation, somniferous	PAZ-PIWI domain protein, translational repression
RNA silencing	AT1G05460	Turquoise	<i>SDE3</i>	Silencing-defective	PAZ-PIWI domain protein, translational repression
Polycomb-group proteins and interacting components	AT1G06770	Red	<i>BM11b</i>	B cell-specific Mo-MLV integration site 1	PAZ-PIWI domain protein, siRNA-binding
Chromatin formation or chromatin remodeling	AT1G08060	Red	<i>MOM1</i>	Morpheus' molecule	PAZ-PIWI domain protein, siRNA-binding
RNA silencing	AT1G08260	Blue	<i>ESD7</i>	Early in short days	PAZ-PIWI domain protein
Histone modification	AT1G08460	Pink	<i>HDA08</i>	Histone deacetylase	PAZ-PIWI domain protein, female gametophyte formation, siRNA binding
Histone modification	AT1G08620	Blue	<i>JMJ16</i>	Arabidopsis thaliana jumonji	Subunits of INO80 complex
RNA silencing	AT1G13790	Red	<i>FDM4</i>	Factor of DNA methylation	Subunits of INO80 complex
Histone modification	AT1G14400	Blue	<i>UBC1</i>	E2 ubiquitin-conjugating enzyme	Histone chaperone H3/H4
RNA silencing	AT1G14790	Yellow	<i>RDR1</i>	RNA-dependent RNA polymerase	Histone methyltransferase
DNA modification	AT1G15340	Turquoise	<i>MBD10</i>	Methylcytosine-binding domain protein	Histone methyltransferase (ATXR5,-6: H3K27me1)
RNA silencing	AT1G15910	Turquoise	<i>FDM1</i>	Factor of DNA methylation	Histone methyltransferase (ATXR5,-6: H3K27me1)
RNA silencing	AT1G16610	Black	<i>SR45</i>	Arginine/serine-rich	PRC1 subunit
Histone modification	AT1G16710	Blue	<i>HAC12</i>	Histone acetyltransferase CBP-like	PRC1 subunit
Chromatin formation or chromatin remodeling	AT1G18450	Blue	<i>ARP4</i>	Actin-related protein	SWI2/SNF2 ATPase family protein
Chromatin formation or chromatin remodeling	AT1G18800	Green	<i>NRP2</i>	NAP (nucleosome assembly protein)-related protein	Subunit of SWI/SNF-remodeling complexes
Chromatin formation or chromatin remodeling	AT1G19100	Turquoise	<i>DMS11</i>	Defective in meristem silencing	Chromodomain remodeling complex
Chromatin formation or chromatin remodeling	AT1G21700	Purple	<i>SW13C</i>	Arabidopsis homolog of SW13	SWI2/SNF2 family ATPase
Histone modification	AT1G32750	Turquoise	<i>HAF1</i>	Histone acetyltransferase CBP-like	ISWI-like chromatin remodeling protein
RNA silencing	AT1G48410	Magenta	<i>AGO1</i>	Argonaute	SNF2/Brahma-type protein
RNA silencing	AT1G48920	Blue	<i>NUC-11</i>	Nucleolin-like	Polycomb-group protein (E(z))
RNA silencing	AT1G54490	Blue	<i>XRN4/EIN5</i>	XRN homolog, ethylene insensitive	DNA methyltransferase (mainly CHG and CHH)
Histone modification	AT1G55970	Turquoise	<i>HAC4</i>	Histone acetyltransferase CBP-like	Subunit of E3 ligase complex, MS11 interactor
DNA modification	AT1G57820	Darkturquoise	<i>VIM1</i>	Variant in methylation	LHP1 and H3 interaction
Histone modification	AT1G62310	Turquoise	<i>JMJ29</i>	Arabidopsis thaliana jumonji	RNase III (dsRNase), miRNA and siRNA generation
RNA silencing	AT1G63020	Brown	<i>NRPD1/SDE4</i>	Nuclear RNA polymerase IV, silencing defective 4	RNase III (dsRNase), siRNA generation
Chromatin formation or chromatin remodeling	AT1G65470	Lightcyan	<i>FAS1</i>	Fasciated	RNase III (dsRNase), siRNA generation
Chromatin formation or chromatin remodeling	AT1G66740	Blue	<i>ASF1A</i>	Arabidopsis antisilencing factor	RNase III (dsRNase), siRNA generation
RNA silencing	AT1G69440	Turquoise	<i>AGO7/ZIP</i>	Argonaute, Zippy	Subunit of E3 ligase complex, MS11 interactor
DNA modification	AT1G69770	Lightyellow	<i>CMT3</i>	Chromomethyltransferase	Subunit of E3 ligase complex, MS11 interactor
Histone modification	AT1G73100	Blue	<i>SUVH3</i>	SET domain group 19	FHA domain protein, miRNA processing
Chromatin formation or chromatin remodeling	AT1G74560	Blue	<i>NRP1</i>	NAP (nucleosome assembly protein)-related protein	DNA glycosylase-domain protein, cytosine demethylation
RNA silencing	AT1G75660	Green	<i>XRN3</i>	XRN homolog	DNA glycosylase-domain protein, cytosine demethylation
Histone modification	AT1G79000	Blue	<i>HAC1</i>	Histone acetyltransferase CBP-like	DNA glycosylase-domain protein, cytosine demethylation
RNA silencing	AT1G80790	Magenta	<i>FDM5</i>	Factor of DNA methylation	GHKL ATPase, interaction with DMS3
Histone modification	AT2G02760	Blue	<i>UBC2</i>	E2 ubiquitin-conjugating enzyme	Structural-maintenance-of-chromosomes protein; required for RNA Pol V transcription
RNA silencing	AT2G13540	Brown	<i>ABH1/CBP80</i>	ABA-hypersensitive, cap-binding complex	Interaction with HD2
RNA silencing	AT2G15400	Lightcyan	<i>NRPE3b</i>	Nuclear RNA polymerases II, IV, and V	Dicer-interacting proteins, siRNA processing
Chromatin formation or chromatin remodeling	AT2G16390	Turquoise	<i>DRD1</i>	Defective in RNA-directed DNA methylation	Dicer-interacting proteins, siRNA processing
Histone modification	AT2G17900	Yellow	<i>SDG37</i>	SET domain group 37	Dicer-interacting proteins, siRNA processing
Chromatin formation or chromatin remodeling	AT2G19480	Blue	<i>NAP1;2</i>	Arabidopsis nucleosome assembly protein	SWI2/SNF2 ATPase; required for RNA Pol V transcription
Polycomb-group proteins and interacting components	AT2G19520	Black	<i>MSI4/FVE</i>	Multicopy suppressor of IRA homolog	Major de novo DNA methyltransferase (CG, CHG, and CHH)
Histone modification	AT2G22740	Turquoise	<i>SUVH6</i>	Su(Var)3-9 homolog	Histone demethylase (H3K4me1,-2,-3)
Polycomb-group proteins and interacting components	AT2G23380	Yellow	<i>CLF</i>	Curly leaf	Histone acetyl transferase complex
Chromatin formation or chromatin remodeling	AT2G24490	Green	<i>RPA2</i>	Replication protein A	Polycomb-group protein (Su(z)12)
Chromatin formation or chromatin remodeling	AT2G25170	Yellow	<i>PKL</i>	Pickle	Subunit of DNA polymerase epsilon
RNA silencing	AT2G27040	Turquoise	<i>AGO4</i>	Argonaute	Chromatin assembly factor subunit H3/H4
RNA silencing	AT2G27100	Cyan	<i>SE</i>	Serrate	Chromatin assembly factor subunit H3/H4
Histone modification	AT2G27350	Green	<i>OTLD1</i>	Otubain-like deubiquitinase	RRM-domain protein
Histone modification	AT2G27840	Green	<i>HD2d/HDT4</i>	Histone deacetylase	dsRNA-binding protein (FDM1)
Chromatin formation or chromatin remodeling	AT2G28290	Greenyellow	<i>SYD</i>	Splayed	dsRNA-binding protein (FDM1)
RNA silencing	AT2G28380	Turquoise	<i>DRB2</i>	Double-stranded RNA-binding protein	dsRNA-binding protein (FDM1)
RNA silencing	AT2G30280	Blue	<i>RDM4/DMS4</i>	RNA-directed DNA methylation, defective in meristem silencing	dsRNA-binding protein (FDM1)
Polycomb-group proteins and interacting components	AT2G30580	Turquoise	<i>BM11a</i>	B cell-specific Mo-MLV integration site 1	Polycomb-group protein (Esc)

RNA silencing	AT2G32940	Black	<i>AGO6</i>	Argonaute	Histone demethylases
Histone modification	AT2G33290	Yellow	<i>SUVH2</i>	Su(Var)3-9 homolog	Histone acetyltransferase
Chromatin formation or chromatin remodeling	AT2G33610	Blue	<i>SWI3B</i>	Arabidopsis homolog of SWI3	Histone acetyltransferase
Histone modification	AT2G35160	Turquoise	<i>SUVH5</i>	Su(Var)3-9 homolog	Histone acetyltransferase
DNA modification	AT2G36490	Turquoise	<i>DML1/ROS1</i>	Repressor of silencing	Histone acetyltransferase
RNA silencing	AT2G40030	Turquoise	<i>NRPE1/DRD3</i>	Nuclear RNA Pol V, defective in RNA-directed DNA methylation	Histone deacetylase
Histone modification	AT2G44950	Lightcyan	<i>HUB1</i>	E3 ubiquitin ligase	Histone acetyltransferase
Chromatin formation or chromatin remodeling	AT2G46020	Turquoise	<i>BRM</i>	Brahma	Histone acetyltransferase
Chromatin formation or chromatin remodeling	AT2G47620	Blue	<i>SWI3A</i>	Arabidopsis homolog of SWI3	Histone acetyltransferase (H3K14ac)
RNA silencing	AT3G03300	Green	<i>DCL2</i>	Dicer-like	Histone acetyltransferase (H3K14ac)
RNA silencing	AT3G05040	Purple	<i>HST</i>	Hasty	Histone acetyltransferase
Chromatin formation or chromatin remodeling	AT3G06010	Magenta	<i>CHR12</i>	Arabidopsis chromatin remodeling	Histone acetyltransferase
Chromatin formation or chromatin remodeling	AT3G06400	Black	<i>CHR11</i>	Chromatin-remodeling protein	Atypical histone deacetylase
Histone modification	AT3G07610	Brown	<i>IBM1</i>	Increase in bonsai methylation	Atypical histone deacetylase
DNA modification	AT3G10010	Turquoise	<i>DML2</i>	Demeter-like proteins	Atypical histone deacetylase
Histone modification	AT3G10390	Cyan	<i>FLD</i>	Flowering locus D, LDS1-like	Histone deacetylase
Chromatin formation or chromatin remodeling	AT3G12380	Red	<i>ARP5</i>	Actin-related protein	Histone deacetylase
RNA silencing	AT3G12550	Turquoise	<i>FD3M3</i>	Factor of DNA methylation	Histone deacetylase
Histone modification	AT3G12980	Yellow	<i>HAC5</i>	Histone acetyltransferase CBP-like	Histone deacetylase
Histone modification	AT3G13682	Pink	<i>LDL2</i>	Flowering locus D, LDS1-like	Histone deacetylase
DNA modification	AT3G14890	Turquoise	<i>ZDP</i>	Zinc finger DNA 3'-phosphoesterase	Histone deacetylase
RNA silencing	AT3G16980	Turquoise	<i>NRPB9a</i>	Nuclear RNA polymerases II, IV, and V	Histone deacetylase
Chromatin formation or chromatin remodeling	AT3G17590	Green	<i>BSH</i>	Bushy	Histone deacetylase
Histone modification	AT3G18520	Lightcyan	<i>HDA15</i>	Histone deacetylase	Histone deacetylase
Histone modification	AT3G19040	Pink	<i>HAF2</i>	Histone acetyltransferase CBP-like	dsRNA-binding, RNA methyltransferase
RNA silencing	AT3G20550	Pink	<i>DDL</i>	Dawdle	Histone chaperone H3/H4
Polycomb-group proteins and interacting components	AT3G20740	Red	<i>FIE, FIS3</i>	Fertilization-independent endosperm, fertilization-independent seeds	DNA methylation-dependent gene silencing
RNA silencing	AT3G22680	Blue	<i>RDMI</i>	RNA-directed DNA methylation	miRNA export receptor
RNA silencing	AT3G22900	Turquoise	<i>NRPD7a</i>	Nuclear RNA Pol IV	H2B monoubiquitination
Polycomb-group proteins and interacting components	AT3G24440	Blue	<i>VRN5</i>	Vernalization	Histone demethylase
RNA silencing	AT3G26932	Turquoise	<i>DRB3</i>	Double-stranded RNA-binding protein	Subunits of INO80 complex
Chromatin formation or chromatin remodeling	AT3G28730	Magenta	<i>SSRP1</i>	Structure-specific recognition protein	Histone demethylase (H3K4me1,2,-3)
RNA silencing	AT3G43920	Red	<i>DCL3</i>	Dicer-like	Histone demethylase
Histone modification	AT3G44490	Blue	<i>HDA17</i>	Histone deacetylase	Histone demethylase
Chromatin formation or chromatin remodeling	AT3G44530	Green	<i>HIRA</i>	Histone regulator A	Histone demethylase
Polycomb-group proteins and interacting components	AT3G44600	Brown	<i>CYP71</i>	Cyclophilin	Putative Histone demethylase (H3K9me2)
Histone modification	AT3G44680	Blue	<i>HDA9</i>	Histone deacetylase	Part of RdDM effector complex
Histone modification	AT3G44750	Blue	<i>HDA3</i>	Histone deacetylase	Histone demethylases
Chromatin formation or chromatin remodeling	AT3G49250	Turquoise	<i>DMS3/IDN1</i>	Defective in meristem silencing, involved in de novo	RNA processing, LHP1 interaction
RNA silencing	AT3G49500	Green	<i>RDR6/SDE1/SGS2</i>	RNA-dependent RNA polymerase, silencing defective, suppressor of gene silencing	Methylcytosine-binding protein
Histone modification	AT3G54610	Blue	<i>HAG1</i>	Histone acetyltransferase GCNS-like	Methylcytosine-binding protein
RNA silencing	AT3G57080	Turquoise	<i>NRPE5</i>	Nuclear RNA Pol V	Cytosine methyltransferase
Chromatin formation or chromatin remodeling	AT3G57300	Green	<i>INO80</i>	Inositol-requiring	DNA topoisomerase
RNA silencing	AT3G62800	Pink	<i>DRB4</i>	Double-stranded RNA-binding protein	Genetic interaction with RNA Pol V
Polycomb-group proteins and interacting components	AT4G00830	Blue	<i>LIF2</i>	LHP1-interacting factor	Chromatin assembly factor subunit, H3/H4
Histone modification	AT4G00990	Yellow	<i>JMJ27</i>	Arabidopsis thaliana jumonji	Polycomb-group protein (p55), Cul4-DDB1 and PCR2 interactor
Polycomb-group proteins and interacting components	AT4G05420	Blue	<i>DDB1A</i>	Damaged DNA-binding	Histone chaperone H2A/H2B
Chromatin formation or chromatin remodeling	AT4G10710	Magenta	<i>SPT16</i>	Suppressor of Ty insertion-like	Histone chaperone H2A/H2B
RNA silencing	AT4G11130	Turquoise	<i>RDR2</i>	RNA-dependent RNA polymerase	Histone chaperone H2A/H2B
DNA modification	AT4G13940	Royalblue	<i>HOG1</i>	Homology-dependent gene silencing	Histone chaperone H2A/H2B
RNA silencing	AT4G14660	Blue	<i>NRPE7/NRPD7b</i>	Nuclear RNA Pol V	Histone chaperone H2A/H2B
Histone modification	AT4G15180	Red	<i>ATXR3/SDG2</i>	Arabidopsis homolog of trithorax, SET domain group	Alternative 9th subunits of Pds II, IV, and V
RNA silencing	AT4G16280	Blue	<i>FCA</i>	Flowering time	Pol IV largest subunit
Polycomb-group proteins and interacting components	AT4G16845	Green	<i>VRN2</i>	Vernalization	Major 7th subunit of RNA Pol IV
Histone modification	AT4G20400	Red	<i>JMJ14</i>	Arabidopsis thaliana jumonji	RNA Pol V largest subunit
RNA silencing	AT4G20910	Blue	<i>HEN1</i>	HUA enhancer	Alternative 3rd subunits of Pds II, IV, or V
Polycomb-group proteins and interacting components	AT4G21100	Blue	<i>DDB1B</i>	Damaged DNA-binding	5th subunit of RNA Pol V

Chromatin formation or chromatin remodeling	AT4G26110	Blue	<i>NAP1;1</i>	Arabidopsis nucleosome assembly protein	Major 7th subunit of RNA Pol V; alternative seventh subunit of RNA Pol IV
Histone modification	AT4G28190	Turquoise	<i>ULT1</i>	Ultrapepala	rRNA gene regulation
Polycomb-group proteins and interacting components	AT4G30200	Green	<i>VEL1</i>	Vernalization-like	H2B deubiquitination
Histone modification	AT4G33470	Red	<i>HDA14</i>	Histone deacetylase	CHD3 chromatin remodeling factor
Histone modification	AT4G38130	Blue	<i>HDA1</i>	Histone deacetylase	Component of DDR complex required for RNA Pol V transcription
Histone modification	AT5G03740	Purple	<i>HD2c/HDT3</i>	Histone deacetylase	IWR1-like regulator of multisubunit RNA polymerase assembly
Histone modification	AT5G04240	Turquoise	<i>ELF6</i>	Early flowering	RNA-dependent RNA polymerase
RNA silencing	AT5G04290	Turquoise	<i>KTF1/RDM3/SPT5-1</i>	KOW domain-containing transcription factor, suppressor of Ty insertion-like	RNA-dependent RNA polymerase
DNA modification	AT5G04560	Turquoise	<i>DME</i>	Demeter	RNA-dependent RNA polymerase
Histone modification	AT5G06550	Blue	<i>JMJ22</i>	Arabidopsis thaliana jumonji	PRC1 subunit
Histone modification	AT5G09230	Red	<i>SRT2</i>	Histone deacetylase SIR2-like	DNA glycosylase-domain protein, cytosine demethylation
Histone modification	AT5G09740	Red	<i>HAM2</i>	Histone acetyltransferase Myst-like	Single-stranded DNA-binding protein
Histone modification	AT5G09790	Magenta	<i>ATXR5</i>	Arabidopsis trithorax-related proteins	RNA helicase
Histone modification	AT5G13960	Green	<i>SUVH4/KYP1</i>	Su(Var)3-9 homolog, kryptonite	Histone methylation
Chromatin formation or chromatin remodeling	AT5G14170	Magenta	<i>CHC1</i>	Clathrin heavy chain 1	Putative histone methyltransferase
DNA modification	AT5G14620	Turquoise	<i>DRM2</i>	Domains-rearranged methyltransferase	Histone methyltransferase
RNA silencing	AT5G20320	Turquoise	<i>DCL4/SMD</i>	Dicer-like	Zn finger protein, miRNA processing
RNA silencing	AT5G21150	Turquoise	<i>AGO9</i>	Argonaute	Subunit of SWR1
Histone modification	AT5G22650	Blue	<i>HD2b/HDT2</i>	Histone deacetylase	Coiled-coil protein
RNA silencing	AT5G23570	Cyan	<i>SGS3</i>	Suppressor of gene silencing	SWI2/SNF2 family ATPase
Histone modification	AT5G24330	Brown	<i>ATXR6</i>	Arabidopsis trithorax-related proteins	Histone chaperone H2A/H2B
DNA modification	AT5G25480	Blue	<i>DNMT2</i>	DNA methyltransferase	Splicing factor
Histone modification	AT5G26040	Brown	<i>HDA2</i>	Histone deacetylase	Histone deacetylase
Chromatin formation or chromatin remodeling	AT5G37055	Yellow	<i>SEF/SWC6</i>	Serrated and early flowering, SWR1 complex	Histone deacetylase
DNA modification	AT5G39550	Red	<i>VIM3</i>	Variant in methylation	High mobility group (HMG) protein, histone chaperone subunit
Histone modification	AT5G42400	Red	<i>SDG25</i>	Arabidopsis homolog of trithorax, SET domain group	H3K9 methyltransferase
RNA silencing	AT5G42540	Lightcyan	<i>XRN2</i>	XRN homolog	Histone methyltransferase
RNA silencing	AT5G43810	Yellow	<i>AGO10/PNH/ZLL</i>	Argonaute, Pinhead, Zwillie	H3K9 methyltransferase
Polycomb-group proteins and interacting components	AT5G44280	Turquoise	<i>RING1a</i>	RING finger protein	Recognition of DNA methylation (SUVH5)
Polycomb-group proteins and interacting components	AT5G46210	Salmon	<i>CUL4</i>	Cullin protein	Recognition of DNA methylation (SUVH5)
DNA modification	AT5G49160	Yellow	<i>MET1</i>	Methyltransferase	Subunits of SWITCH/SUCROSE NONFERMENTABLE (SWI/SNF)-remodeling complexes
Histone modification	AT5G50320	Green	<i>ELO3</i>	Histone acetyltransferase GNAT-like	Subunits of SWITCH/SUCROSE NONFERMENTABLE (SWI/SNF)-remodeling complexes
Polycomb-group proteins and interacting components	AT5G51230	Blue	<i>EMF2</i>	Embryonic flower	Subunits of SWITCH/SUCROSE NONFERMENTABLE (SWI/SNF)-remodeling complexes
Histone modification	AT5G53430	Red	<i>SDG29</i>	SET domain group 29	SWI2/SNF2 family ATPase
Chromatin formation or chromatin remodeling	AT5G55300	Red	<i>MGO1</i>	Mgoun	H2B monoubiquitination
Histone modification	AT5G55760	Red	<i>SRT1</i>	Histone deacetylase SIR2-like	H2B monoubiquitination
Histone modification	AT5G56740	Blue	<i>HAG2</i>	Histone acetyltransferase GCN5-like	Regulator of histone methylation, ATX1 interactor
Chromatin formation or chromatin remodeling	AT5G56950	Blue	<i>NAP1;3</i>	Arabidopsis nucleosome assembly protein	Homeodomain protein
DNA modification	AT5G58130	Blue	<i>ROS3</i>	Repressor of silencing	Methylcytosine-binding proteins
Chromatin formation or chromatin remodeling	AT5G58230	Blue	<i>MSI1</i>	Multicopy suppressor of IRA homolog	DNA methylation
DNA modification	AT5G59380	Blue	<i>MBD6</i>	Methylcytosine-binding domain protein	Polycomb-group protein (Su(z)12)
Histone modification	AT5G61060	Green	<i>HDA05</i>	Histone deacetylase	Homeodomain protein
Histone modification	AT5G63110	Blue	<i>HDA6/SIL1/AXE1/RTS1</i>	Histone deacetylase, modifier of silencing, auxin-gene repression, RNA-mediated transcriptional silencing	Exoribonuclease
Histone modification	AT5G64610	Green	<i>HAM1</i>	Histone acetyltransferase Myst-like	Exoribonuclease
Chromatin formation or chromatin remodeling	AT5G64630	Green	<i>FAS2</i>	Fasciated	Exoribonuclease, small RNA processing
Chromatin formation or chromatin remodeling	AT5G66750	Brown	<i>CHR1/DDMI</i>	Decreased DNA methylation, somniferous	3'-Phosphatase