Heatmap of motif enrichment counts across genomic regions (columns) for response modules (rows). Column groups: −500, +/−500, −1k, +/−1k, −2k, +/−2k, −10k, each with raw / umr / acrL / acrE sub-columns. The rightmost column lists associated transcription-factor motifs.

Module	−500:raw	−500:umr	−500:acrL	−500:acrE	+/−500:raw	+/−500:umr	+/−500:acrL	+/−500:acrE	−1k:raw	−1k:umr	−1k:acrL	−1k:acrE	+/−1k:raw	+/−1k:umr	+/−1k:acrL	+/−1k:acrE	−2k:raw	−2k:umr	−2k:acrL	−2k:acrE	+/−2k:raw	+/−2k:umr	+/−2k:acrL	+/−2k:acrE	−10k:raw	−10k:umr	−10k:acrL	−10k:acrE	Motifs
cold_up:m01	4	5	3	3	3	3	3	2	6	6	3	3	4	3	3		8	9	5	5	8	10	5	5	5	8	5	4	At|TCP16[DAP,D] At|TCP16[SELEX,D] At|TCP16[PBM,D]
cold_up:m02	1	0	1	1	5	3	1	1	8	4	0	0	2	1	1	0					13	4	8	5	1	2	1	1	At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
cold_up:m03	3	4	2	2	3	3	2	1	4	7	3	3	5	3	2		5	10	4	2	4	8	5	3	9	4	3		At|ABF2[DAP,D] At|DPBF3[DAP,D] At|BZIP16[DAP,D] At
cold_up:m04	2	2	1	1	1	1	1		2	4	2	2	3	2	2		2	4	1	2	2	1	2	3	7	2	2		At|AT1G06070[DAP,D] At|VIP1[DAP,D] Zm|bzip110[PBM,
cold_up:m05	0	0	1	0	0	0	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	5	2	2		At|DREB2C[PBM,D]
cold_up:m06	2	1	0	0	6	3	1	1	2	2	0	0	9	5	1	2	1	1	0	0	8	6	1	1	2	1	0		At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
cold_up:m07	6	9			7	10			5	8	3		6	8	5		5	7	4	5	5	8	7	6	4	7	5	6	At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
cold_up:m08	1	1			1	1			1	1			5	5	0	2	1	0	0		4	3	0	2	1	1	1	1	At|TFIIIA[DAP,D] At|SPL7[DAP,D] Zm|sbp11[PBM,I]
cold_up:m09	1	1			1	2			1	1			1	1			2	5	0		2	5			1	4	1	1	At|ARF11[DAP,I] At|ARF18[DAP,I] At|ARF9[DAP,I] At|
cold_up:m10	5	7			4	6			5	8			3	7			6	12			3	10	4	4	2	13	3	6	At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
cold_up:m11	1	1			5	4			1	1	1		5	5			0	1	0		3	4	0	1	1	1	0	1	At|ABI4[SELEX,I] Zm|abi4[SELEX,D]
cold_up:m12	1	1			0	0			3	2			3	2			2	3			3	4			1	4	2		At|ERF017[DAP,D] At|ERF016[DAP,I] Zm|ereb57[DAP,I]
cold_up:m13	5	5			4	4			3	3			2	2			2	4			1	4			0	4			At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
cold_up:m14	3	3			1	2			2	3							2	3			1	2			1	2			At|LBD19[DAP,D] At|LBD31[DAP,I] At|LBD16[DAP,D] At|
cold_up:m15	5				4	7			3				2	6			3				2	8			1	8			At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
cold_up:m16 early-activation	6	7	3	3	6	7	4	3	8	9	5	4	7	9	5	4	10	14	7	7	12	18	9	9	4	13	7	8	At|TCP16[DAP,D] At|TCP16[SELEX,D] At|TCP16[PBM,D]
cold_up:m17	3	3	3	2	2	2	2	2	3	5	3	3	3	2	3	2	2	3	3	2	2	9	5	3	At|AT1G06070[DAP,D] At|VIP1[DAP,D] Zm|bzip110[PBM,
cold_up:m18 down-up	10	13	5	7	10	14	7	9	7	10	4	5	7	10	5	7	6	11	6	5	6	11	9	6	3	10	7	7	At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
cold_up:m19 slowly-activation	2	2			1	1			2	1	1		1	1			3	1	1	1	1	1	0	0	3	5	1	3	At|DREB2C[PBM,D]
cold_up:m20 recovery	1	1	2	2	6	4	1	2	1	1	1	1	6	6	1	1	1	1	1	1	4	5	1	1	1	1	1		At|ABI4[SELEX,I] Zm|abi4[SELEX,D]
cold_up:m21 late-activation	4	4	3	3	3	4	3	3	6	8	4	4	4	7	3	4	4	8	5	5	5	10	5	6	3	15	7	6	At|AT1G06070[DAP,D] At|VIP1[DAP,D] Zm|bzip110[PBM,
heat_up:m01	2	2	1		1	1			2	2	1		2	2			3	2	0		6	6	1	0	2	4	0	1	At|DREB2C[PBM,D]
heat_up:m02	11	9			15	17			10	9	10		11	15	12		7	8	10		8	12	12	4	4	12	9	3	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m03	21	25			27	31			17	24			19	25	7		16	23	10		17	25	9	11	8	22	11	10	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m04	5	5			5	6			4	5			4	5			3	5	3		4	6	3	4	2	8	3	3	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m05	4	3			2	1			5	4			3	2			3	3			2	1			2	2			At|GATA12[DAP,D] At|GATA11[DAP,D] At|GATA6[DAP,D]
heat_up:m06	0				0				0				0	0			0	0			0	0			3	0			At|ANAC011[DAP,D] At|ARF14[PBM,D] At|RAV2[PBM,D] A
heat_up:m07	11	11			9	10			7	9			6	8			6	9	2		3	7	2	1	7	3	1		At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m08 recovery	7	9			9	11			7	9			7	11			5	8			5	10	12		4	12	9	6	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m09	4	2			3	1			2	2			1	1			1	1			1	0			0	0			At|AT3G46070[DAP,D] Zm|znf3[DAP,I]
heat_up:m10	2	3			3	2			1	3			1	0			2	3			2	3			1	3			At|ATMYB63[DAP,D] At|ATMYB13[DAP,D] At|MYB58[DAP,
heat_up:m11	1	0			1	0			1	0			1	0			1	0			4	1			1	1			At|WOX13[PBM,D] At|WOX14[PBM,I] At|WOX10[PBM,I] Z
heat_up:m12	0	1			0	0			1	1			1	1			2	3			2	2			1	1			At|BMY2[DAP,D] At|BEH2[DAP,D] At|BEH3[DAP,D] At|BE
heat_up:m13	0	0			0	1			1	0			1	0			2	2			2	1			1	1			At|ATMYB63[DAP,D] At|ATMYB13[DAP,D] At|MYB58[DAP,
heat_up:m14	1				2	1			1	0			2	0			3	1			4	1			2	2			At|HMGB9[DAP,D] At|HDG2[PBM,I] At|HDG3[PBM,I] At|
heat_up:m16 slowly-activation	1	2	1		2	2	1		1	1	1	0	1	1	1	0	3	2	1		3	2	1	1	2	2	2		At|AT4G12670[DAP,D] At|SRS7[DAP,D] At|TRP1[DAP,D]
heat_up:m17	25	24	12	6	28	31	16	6	19	21	13	6	19	27	16	7	14	21	13	6	13	24	15	8	6	25	13	6	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m18 early-activation	45	47	18	10	53	59	23	12	34	43	20	12	36	50	23	15	27	41	23	14	27	46	24	17	12	45	23	15	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
heat_up:m19 late-activation	3	2	2	3	3	2	3	3	2	2	2		2	2	3		2	2	2	3	2	2	2	4	0	1	1	2	At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
cold_down:m01	5	6	3		3	4	4		5	6	4		4	6	4		4	6	5		3	6	5	2	1	4	6	2	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m02	0	0			1	1			0	0			1	0			0	0			1	0			5	1			At|ATBZIP42[DAP,D] At|BZIP43[DAP,D] At|AtbZIP48[DA
cold_down:m03	1	1			1	1			3	3			3	3			1	2			2	2			1	2			At|AT3G10030[DAP,D] At|GT-1[PBM,D]
cold_down:m04	2	3			1	1			1	1			1	1			2	2			2	2			0	2			At|TRB2[DAP,D] At|TRB1[PBM,D] At|TRB3[PBM,I] At|TR
cold_down:m05	1	1			1	1			1	1			2	2			1	1			1	1			4	1			At|MYB3R-3[DAP,I] At|MYB3R5[DAP,D] Zm|myb15[DAP,I]
cold_down:m06	1	1			3	3							1	1			0	1			1	2			0	2			At|MYB55[DAP,D]
cold_down:m07	1	1			2	2			1	1			2	1			2	2			5	3			1	1			At|TGA1[SELEX,D]
cold_down:m08	1	2			4	2			1	2			6	4			1	1			6	4			1	0			At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
cold_down:m09	2	3			1	1			2	3			1	1			1	2			0	2			0	2			Zm|MNB1A[Transfac,D] At|SSRP1[PBM,I]
cold_down:m10	2	2			3	3			1	1			1	1			1	1			1	1			1	1			At|ANL2[DAP,D] At|HDG11[DAP,D] At|HDG1[DAP,D] At|H
cold_down:m11	1	0			1	1			1	0			2	1			2	0			3	2			1	0			At|TCP24[DAP,D] At|TCP13[DAP,D] At|TCP17[DAP,D] At
cold_down:m12	1	1			4	3			1	1			4	3			3	1			4	2			0	0			At|AT3G12910[DAP,D] Zm|nactf50[DAP,I]
cold_down:m13	1	1			1	0			3	3			3	3			0	0			3	2			0	0			At|AT3G58630[DAP,D] Zm|thx1[DAP,I] At|AT5G05550[DA
cold_down:m14	1	3			1	2			1	2			1	2			1	2			1	1			1	2			At|ZHD14[DAP,D] At|AHL6[PBM,I] At|ATHB-22[PBM,D]
cold_down:m15	2	1			1	1			2	1			1	1			3	1			2	1			1	1			At|HMGB9[DAP,D] At|HDG2[PBM,I] At|HDG3[PBM,I] At|A
cold_down:m16	2	1			1	1			3	1			2	0			2	0			2	1			1	1			At|HMGB15[DAP,D] At|AHL9[PBM,I] At|AHL13[PBM,D] Zm
cold_down:m17	2	3			4	5			1	2			2	4			1	2			1	2			1	2			At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m18	2	2			3	0			1	0			1	0			2	0			1	0			1	0			At|AT1G19040[DAP,D] At|BHLH80[DAP,D] At|BHLH81[DAP
cold_down:m19	0				0	0			1				1	0			1	0			0	0							At|AT1G76870[DAP,D]
cold_down:m20	2	2			5	5			1	1			3	4			1	1			2	3			0	0			At|TCP14[DAP,D] At|TCP9[DAP,D] At|TCP20[DAP,D] At|
cold_down:m21	0				3	3							3	3			0	0			3	3			0	0			At|AT3G12910[DAP,D] Zm|nactf50[DAP,I]
cold_down:m22	1				3	2			0	1			3	2			1	1			2	2			0	1			At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
cold_down:m23	6				7	7			4	6			4	5			3	5			3	5			3	5			At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m24	1				3	2			1	2			1	0			1	1			4	3			0				At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP
cold_down:m25	4				3				4				3	1			2				1	0			0				At|AT5G60130[DAP,D]
cold_down:m26													3	2			3	2			2				0				At|ERF021[DAP,D]
cold_down:m33	5	5	3		3	3	4	1	3	4	3		4	2			6	5	2	1	5	6	2	1	1	5	5	1	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m34 early-repression2	1	0			1	1			2	2			4	3	0		1	1	0		2	5	1	0	1	0	0	0	At|NAC035[DAP,D] Zm|nactf88[DAP,I] Zm|nactf3[DAP,I
cold_down:m35	4	3			3	3			2	2			2	1			1	1			2	1			0	1	0		At|AT5G60130[DAP,D]
cold_down:m36	1	1			2	1			1	1			2	2			5	3	3		3	3			1	2	2		At|TGA1[SELEX,D]
cold_down:m37	2	2			4	2			2	3			7	4			1	1			6	4			1	1			At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
cold_down:m38	2	3			1	3			3	3			1	3			1	2	3	2	1	3			0	0	1		At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m39	1	1			3	2			1	0			3	2			1	0			5	3			1	0			At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP
cold_down:m40	1	2			3	4			1	1			2	1			1	1			3	3			1	3			At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m41	2	3			1	1			1	1			3	3			0	1			1	0			1	0			At|LBD19[DAP,D] At|LBD31[DAP,I] At|LBD16[DAP,D] At
cold_down:m42	1				1	1			1	0			0	1			1	1			0	1			1	0			At|EFM[DAP,D] At|ERF118[DAP,D] At|HHO6[DAP,D] At|M
cold_down:m43 slowly-repression	1	1			5	3			1	2			6	3			1	1	0		6	3	0		1	0			At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
cold_down:m44	1	2	2		2	2	3		1	2	1		1	3	2	1	0	1	2	1	1	2	1	0			1	0	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m45	3	3			5	6			3	2			3	2	3	5	2	4	4	5	3	1	1	4	3	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,D] At
cold_down:m46	5	4	2	0	2	2	3		3	3	2		3	3	1		3	6	4	1	3	5	1	1	4	3	1	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m47	1	0		1	1	1	1	2	1	1	1	2	1	2	2	1	2	2	2	1	2	2	2	2	1	2	2	At|TGA1[SELEX,D]
cold_down:m48	2	3	2	1	2	2	3	2	4	3	2	1	4	2	2	2	3	5	2	3	5	3	0	1	2	2	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m49 early-repression	4	4	2	1	2	2	3	1	3	3	3	1	3	3	1	1	3	5	1	1	4	5	1	3	4	1	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m50	1	1			0	0			0				4	1			2	1			5	1	0	1	0	0	At|SPL8[SELEX,D] Zm|sbp3[SELEX,I] Zm|sbp1[SELEX,I]
cold_down:m51 late-repression	1	1			3	3			1	1			7	1			1	1			5	4	0		1	0			At|AT3G12910[DAP,D] Zm|nactf50[DAP,I]
cold_down:m52	2	1	1	0	2	1	1	2	3	2	2	0	5	2	3	4	2	1	2	3	1	At|TGA1[SELEX,D]
cold_down:m53	8	7	5	3	10	11	7	5	6	5	5	2	5	7	7	4	4	4	4	3	4	8	6	4	2	3	5	3	At|HSFC1[DAP,D] At|HSFB4[DAP,D] At|HSFA3[DAP,I] Zm
cold_down:m54	0	0			4	1			0				6	2			0				6	2	0		0	0			At|SHN2[DAP,D] At|SHN3[DAP,I] At|HRE1[DAP,D] At|LB
heat_down:m01	1	1			2	2							4	3			3	0			4	2			1	0	0		At|ERF021[DAP,D]
heat_down:m02	1	1			1	1			3	3			2	2			3	1			3	2			1	0			At|SPL3[SELEX,D]
heat_down:m03 quick-recovery	1	1			4	3			2	3			2	3			3	5			3	5	1	2	1	0		At|AT3G12910[DAP,D] Zm|nactf50[DAP,I]
heat_down:m04	0	0			2	1			4	3			1	1			4	4			1	1	1		At|MYB88[DAP,D]
heat_down:m05	3	2			1	2			0	1			1				1	0			1	0			0	0	5		At|ARID3[DAP,D] Zm|arid3[DAP,I] Zm|arid8[DAP,I] Zm
heat_down:m06	0	0			1	2							1	0			5	1			5	1	0		1	1	At|FEZ[DAP,I] At|ANAC094[DAP,D] Zm|nactf37[DAP,I]
heat_down:m07	1	1			1	2			3	3			2	2			2	2			2	5			0	1			At|RVE4[DAP,D] At|RVE7[DAP,D] At|RVE5[DAP,D] At|RV
heat_down:m08	0	0			1	2			3	2			2	2			1	1			3	4			0	1			At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP
heat_down:m09	1	1			0	1			2	1			2	1			3	1			4	3			2	1			At|ARF11[DAP,I] At|ARF18[DAP,I] At|ARF9[DAP,I] At|
heat_down:m10	2	2			4	1			3	2			6	5			3	3			3	1			1	1			At|ATHB-51[DAP,D] At|HAT5[DAP,D] At|HB-5[DAP,D] Zm
heat_down:m11	1	1			3	1			2	2			6	5			2	1			5	4			1	0			At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP
heat_down:m26	1	1	1		1	1	2		3	2	1		4	3	2		3	3	3	4	5	5	4	3	2	2	At|TCP24[DAP,D] At|TCP13[DAP,D] At|TCP17[DAP,D] At
heat_down:m27	1	0			4	3			0	1			6	4			0	1			5	5			0	0			At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP
heat_down:m28	0	0			1	1			2	1			2	0			1	1			5	4	1		2	1	0		At|ARF11[DAP,I] At|ARF18[DAP,I] At|ARF9[DAP,I] At|
heat_down:m29	3	2			5	4			3	2			9	8			2	1			7	8			2	1			At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP
heat_down:m30 recovery	2	2			3	2			2	3			2	2			2	5			2	5	1	4	At|MYB43[DAP,D] At|MYB80[DAP,D] At|MYB74[DAP,D]
heat_down:m31	0	0			1	1							2	2			3	1			3	2			1	1			At|AT1G19040[DAP,D] At|BHLH80[DAP,D] At|BHLH81[DAP
heat_down:m32	2	3			3	4			2	3			2	3			3	5			3	5			1	2			At|AT4G27900[DAP,D] At|AT5G59990[DAP,D] At|ZIM[DAP
heat_down:m33	1	1	0		1	1	2		3	2	1		3	2			2	2	4	6	1	1	1	2	0	At|SPL3[SELEX,D]
heat_down:m34 late-repression	1	1			1	1							4	2			3	2			4	2			1	2	0		At|F3A4.140[SELEX,D] At|F3A4.140[PBM,D]
heat_down:m35 early-repression	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3	6	1	0	3	1	0	Zm|nfya1[ChIP,I] Zm|ca2p15[ChIP,I] Zm|ca2p4[ChIP,I
heat_down:m36	2	2			5	3	0		3	2	0		9	7	0		2	2			9	8	1	0	1	1	1	0	At|ERF105[PBM,D] At|RAP2-11[DAP,D] Zm|ereb142[DAP