

Table S2. Characteristics in the CHG context of the 126 DMRs used as markers in the epiRILs.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
epiRIL	published ddm1 markers	published col-wt markers	EM-seq verified ddm1 markers	EM-seq verified col-wt markers	Total verified markers	%similarity with published data	Markers that change	ddm1 markers that switch to methylated	wt markers that switch to hypomethylated	hypermethylated markers	ddm1 markers that switch to methylated	wt markers that switch to hypomethylated	hypermethylated markers	verified ddm1 markers
11	16	110	4	108	112	88,9	14	12	2	0	330, 357, 371, 372, 373, 374, 378, 379, 380, 382, 383, 385	166, 495		1, 2, 335, 679
24	11	115	10	114	124	98,4	2	1	1	0	544	495		1, 2, 4, 392, 414, 415, 699, 701, 703, 704
60	44	82	28	79	107	84,9	19	16	3	0	58, 87, 91, 114, 372, 373, 374, 378, 379, 380, 382, 383, 385, 550, 552, 691	495, 499, 703		25, 27, 33, 39, 52, 58, 101, 123, 126, 166,167, 551, 553, 586, 587, 654, 661, 665, 666, 678, 679, 686, 693, 694, 695, 698, 699, 701
73	18	108	15	105	120	95,2	6	3	3	0	550, 552, 691	1, 2, 495		551, 665, 666, 678, 679, 686, 689, 693, 694, 695, 698, 699, 701, 703, 704
92	67	59	41	55	96	76,2	31	26	4	0	11, 12, 87, 114, 147, 157, 158, 159, 160, 240, 330, 357, 371, 372, 550, 552, 706, 722, 823, 827, 832, 837, 845, 849, 853, 854	495, 499, 701, 703		17, 20, 25, 27, 33, 39, 52, 58, 91, 101, 123, 126, 128, 150, 335, 551, 553, 586, 587, 654, 661, 665, 666, 678, 679, 707, 712, 713, 715, 716, 718, 719, 721, 724, 725, 726, 728, 731, 734, 744, 825
95	38	88	24	87	111	88,1	15	14	1	0	550, 691, 706, 722, 726, 823, 825, 827, 832, 837, 845, 849, 853, 854	495		686, 689, 693, 694, 695, 698, 699, 701, 703, 704, 707, 712, 713, 715, 716, 718, 719, 721, 724, 725, 728, 731, 734, 744
101	43	83	29	80	109	86,5	17	15	2	0	7, 11, 12, 114, 706, 722, 823, 825, 827, 832, 837, 845, 849, 853, 854	495, 499		4, 5, 10, 17, 20, 25, 27, 33, 39, 58, 101, 123, 126, 128, 707, 712, 713, 715, 716, 718, 719, 721, 724, 725, 726, 728, 731, 734, 744
108	13	113	9	111	120	95,2	10	4	2	0	396, 398, 550, 552	495, 654		392, 551, 553, 586, 587, 665, 666, 678, 679
118	42	84	23	83	106	84,1	23	20	0	0	7, 11, 12, 87, 91, 114, 147, 157, 158, 159, 160, 418, 432, 466, 515, 527, 529, 531, 537, 544			1, 2, 4, 5, 10, 17, 20, 25, 27, 33, 39, 52, 58, 101, 123, 126, 128, 150, 414, 415, 427, 495, 499
150	58	68	23	67	90	71,4	39	35	2	1	114, 147, 157, 158, 159, 160, 163, 383, 385, 388, 402, 405, 515, 527, 529, 531, 537, 546, 547, 550, 552, 823, 825, 827, 832, 837, 845, 849, 853, 854, 859, 862, 863, 865, 867	495, 499	716	101, 123, 126, 128, 150, 399, 400, 551, 553, 586, 587, 654, 661, 665, 666, 678, 679, 725, 726, 728, 731, 734, 744
193	58	68	30	68	98	77,8	34	28	0	0	168, 240, 330, 357, 371, 372, 373, 374, 378, 379, 380, 402, 418, 432, 466, 499, 515, 527, 529, 531, 537, 544, 546, 547, 552, 661, 691, 706			166, 167, 171, 335, 405, 414, 415, 427, 495, 553, 586, 587, 654, 665, 666, 678, 679, 686, 689, 693, 694, 695, 698, 699, 707, 712, 713, 715, 716, 718
195	7	119	5	114	119	94,4	13	2	5	0	432, 665	495, 551, 553, 587, 654		427, 666, 678, 679, 686
202	31	95	22	92	114	90,5	15	9	3	0	87, 114, 158, 159, 160, 550, 552, 678, 691	495, 499, 694		17, 20, 25, 27, 33, 39, 52, 58, 101, 123, 551, 553, 586, 587, 654, 661, 665, 666, 679, 686, 689, 693
215	27	99	5	98	103	81,7	27	22	1	0	147, 157, 158, 159, 160, 163, 168, 240, 330, 357, 371, 372, 373, 374, 378, 379, 380, 382, 383, 385, 388, 867	495		150, 166, 167, 171, 335
232	96	30	51	30	81	64,3	49	46	0	1	7, 11, 12, 52, 87, 91, 114, 147, 168, 240, 330, 357, 371, 372, 373, 374, 388, 396, 398, 418, 432, 466, 515, 527, 529, 531, 537, 544, 546, 547, 550, 552, 706, 722, 823, 827, 832, 837, 845, 849, 853, 854, 859, 862, 863, 865, 867	691	691	2, 4, 5, 10, 17, 20, 25, 27, 33, 39, 58, 101, 123, 126, 128, 166, 167, 171, 335, 399, 400, 402, 405, 414, 415, 427, 495, 499, 551, 553, 586, 587, 654, 661, 707, 712, 713, 715, 716, 718, 719, 721, 724, 725, 726, 728, 731, 734, 744, 825
257	48	78	22	76	98	77,8	32	26	2	0	383, 385, 388, 527, 529, 531, 537, 544, 546, 547, 689, 691, 719, 722, 823, 825, 827, 832, 837, 845, 849, 853, 854, 859, 862, 863	1, 495		678, 679, 686, 693, 694, 695, 698, 699, 701, 703, 704, 715, 716, 718, 721, 724, 725, 726, 728, 731, 734, 744
260	11	115	9	113	122	96,8	9	2	2	0	388, 722	1, 495		392, 701, 703, 713, 715, 716, 718, 719, 721
333	64	62	19	62	81	64,3	49	45	0	0	157, 158, 159, 160, 163, 357, 371, 372, 373, 374, 378, 379, 380, 382, 383, 388, 396, 398, 402, 418, 427, 432, 466, 499, 515, 527, 529, 531, 537, 544, 546, 547, 706, 722, 823, 825, 827, 832, 837, 845, 849, 853, 854, 859, 862			392, 399, 400, 405, 414, 415, 495, 707, 712, 713, 715, 716, 724, 725, 726, 728, 731, 734, 744
350	65	61	36	59	95	75,4	35	30	1	0	7, 11, 12, 87, 91, 114, 147, 157, 158, 159, 160, 396, 398, 402, 432, 466, 515, 527, 529, 531, 537, 544, 706, 722, 729, 823, 825, 827, 832, 837	712		1, 2, 4, 5, 10, 17, 20, 25, 27, 33, 39, 52, 58, 101, 123, 126, 128, 150, 399, 400, 405, 414, 415, 427, 495, 499, 718, 719, 721, 724, 725, 726, 728, 731, 734, 744
361	23	103	16	100	116	92,1	13	8	2	0	4, 7, 11, 12, 87, 91, 114, 147	495, 499		1, 2, 5, 10, 17, 20, 25, 27, 33, 39, 52, 58, 101, 123, 126, 128
366	35	91	21	90	111	88,1	19	14	1	0	718, 722, 726, 823, 825, 827, 832, 837, 845, 849, 853, 854, 859, 862	495		693, 694, 695, 698, 699, 701, 703, 704, 707, 712, 713, 715, 716, 719, 721, 724, 725, 728, 731, 734, 744
371	6	120	0	119	119	94,4	11	6	1	0	392, 396, 398, 399, 691, 693	495		
480	3	123	0	122	122	96,8	8	3	1	0	863, 865, 867	495		
495	2	124	1	121	122	96,8	12	1	3	0	547	495, 713, 725,		392

For each epiRIL (column one) the number of published DMR markers <sup>22</sup> are divided into those inherited from the ddm1 mutant (hypomethylated) (column two) and those inherited from the Columbia wild type (Col-wt) (methylated), which are in column three. In column four, we display the number of ddm1 markers found in our analysis of EM-seq data that were called “verified ddm1 markers” and in the column five, we show the number of verified Col-wt markers. Column six presents the sum of verified ddm1 and Col-wt markers, which we called “total verified markers”. Then, using this number we calculated the percentage similarity with the published data, which is shown in column seven. In column eight, we display the number of markers that changed. In column nine we detail the number of ddm1 markers that switched from hypomethylated back to methylated as in Col-wt (whose names are shown in column twelve); in column ten we show the Col-wt markers that switched to hypomethylated (whose names are shown in column thirteen); and in column eleven we show the markers that switched to hypermethylated and became different from Col-wt (whose names are shown in column fourteen). \*Markers shown in blue are those that contain a potentially mobile transposable element, according to Colomé-Tatché et al. <sup>24</sup>.



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