

Supplementary Table 3. Genomic annotation of the 126 DMR non redundant markers (Assembly version: AtGDB TAIR9/10 v171

Marker	chr	start_bp	stop_bp	Genomic feature
MM1	1	4330606	4332076	Transposable element gene At1g12720.1
MM2	1	6010663	6013983	Transposable element gene At1g17495.1
MM4	1	7430002	7432267	Protein-coding gene At1g21230
MM5	1	8490901	8491751	Transposable element gene At1g23990.1
MM7	1	8801988	8802650	Gene At1g25054.1 (UDP-3-O-acyl N-acetylglucosamine deacetylase family protein)
MM10	1	8931514	8932319	Transposable element gene At1g25430.1
MM11	1	9574179	9575333	Transposable element gene At1g27565.1
MM12	1	9928550	9929215	Transposable element gene At1g28323.1
MM17	1	11096911	11100708	Transposable element gene At1g31100.1
MM20	1	11322798	11324178	Transposable element gene At1g31640.1
MM25	1	12273252	12276332	Transposable element genes At1g33813.1 and At1g33817.1 (transposable element potentially mobile)
MM27	1	12403422	12409842	Gene At1g34080.1 and At1g34090 (transposable element gene)
MM33	1	13003181	13008641	Genes At1g35370.1, At1g35375.1 and At1g35380.1
MM39	1	13329072	13340087	Genes At1g35840.1, At1g35850.1, At1g35860.1, At1g35870.1(transposable element gene) and At1g35880.1
MM52	1	13618483	13621742	Transposable element gene, At1g36250.1
MM58	1	13833771	13837234	Transposable element gene At1g36620.1 and gene At1g36622.1
MM87	1	15689530	15690065	Transposable element gene At1g41930.1
MM91	1	15911298	15911993	Transposable element gene At1g42450.1, transposon fragment
MM101	1	16372020	16377961	Transposable element gene At1g43387.1
MM114	1	16718975	16720795	Exon, mRNA 116481577, transposable element gene
MM123	1	17258838	17264340	Transposable element gene At1g46624.1 and gene At1g46696.1
MM126	1	17363118	17368434	Gene At1g47370.1, transposable element At1g47360.1
MM128	1	17523013	17526003	Transposable element At1g47650.1, and gene At1g47655.1
MM147	1	21457161	21459296	DNA-binding protein gene At1g58025.1, transposable element gene
MM150	1	21750810	21758234	Protein-coding gene At1g58602.2 (ATP/protein binding)
MM157	1	22234806	22236246	Transposable element gene, At1g60320.1
MM158	1	23570478	23572928	Protein-coding gene At1g63550
MM159	1	24432541	24433101	Protein-coding gene At1g65690
MM160	1	24459659	24460449	Transposable element gene, F-box family protein At1g65760.1
MM163	1	27070457	27071391	Transposable element, transposon fragment
MM166	2	245700	249332	Protein-coding gene AT2G01550
MM167	2	373127	378679	Protein-coding gene AT2G01840
MM168	2	930664	930979	Transposable element gene
MM171	2	1251574	1252848	Exon mRNA 116477962, transposable element gene
MM240	2	3730709	3734122	Transposable element genes At2g09865.1 and At2g09870
MM330	2	5859874	5864604	Transposable element gene At2g13970.1 potentially mobile , transposon fragment and myb family transcription factor At2g13960.1
MM335	2	6116421	6119529	Protein-coding gene AT2G14400
MM357	2	6961080	6965815	Transposable element gene At2g16010
MM371	2	7544676	7545673	Gene At2g17350.1, transposon fragment
MM372	2	7784246	7791011	Transposable element gene At2g17910.1 and gene At2g17930.1
MM373	2	8278256	8281520	Gene At2g19110.1 (ion transmembrane transporter), transposable element gene
MM374	2	8568345	8571152	Gene At2g19850.1(ovate family protein) and gene At2g19860.1 (ATP binding)
MM378	2	9129123	9130835	Protein-coding gene At2g21330.2 (fructose-bisphosphate aldolase, putative)
MM379	2	9194501	9198421	Gene At2g21465.1 (defensin-like family protein)
MM380	2	9659660	9659972	Gene At2g22720.2, transposable element gene
MM382	2	10540595	10541195	Protein-coding gene, At2g24750
MM383	2	12456566	12461464	Protein-coding genes At2g28990 and At2g29000
MM385	2	12743505	12743777	Protein-coding gene At2g29880
MM388	2	15418592	15418927	Protein-coding gene At2g36780
MM392	3	129256	129877	Gene At3g01345.1
MM396	3	7061219	7061849	RNA-binding gene At3g20250.1
MM398	3	7738889	7739204	Gene At3g21960.1 (receptor-like protein kinase-related) transposable element gene
MM399	3	8937125	8938547	Genes At3g24516.1 and At3g24517.1, unidentified transposable element gene
MM400	3	9228167	9232640	Transposable element gene At3g25450.1 and F-box family protein gene At3g25460.1
MM402	3	9436406	9439321	Transposable element gene At3g25815.1
MM405	3	9693424	9699210	Transposable element genes At3g26483.1 and At3g26486.1
MM414	3	11117372	11121888	Transposable element gene At3g29153.1
MM415	3	11172354	11176989	Transposable element gene At3g29205.1
MM418	3	11393148	11396743	Transposable element gene At3g29578.1 and gene At3g29580.1
MM427	3	11797070	11799048	Transposable element gene At3g30170.1
MM432	3	12096151	12098525	Transposable element gene
MM466	3	13667971	13671251	Transposable element gene, 2 transposon fragments
MM495	3	15186655	15188455	Transposable element (not annotated)
MM499	3	15318785	15325698	Transposable element genes At3g43360.1, At3g43370.1 and At3g43380.1
MM515	3	15632482	15638053	Transposable element gene At3g43730.1
MM527	3	16184523	16191125	Protein-coding gene At3g44610.1(protein kinase family protein)

MM529	3	16257166	16260312	Transposable element gene At3g44713
MM531	3	16508925	16509440	Exon (not annotated)
MM537	3	16821132	16825096	Gene At3g45780.1 (FMN-binding / blue light photoreceptor/ kinase/ protein binding / protein serine/threonine kinase) and protein kinase-related gene At3g45790.1
MM544	3	18370976	18371431	Gene At3g49560.1 (Mitochondrial import inner membrane translocase subunit Tim17/Tim22/Tim23 family protein)
MM546	3	22243503	22246468	Two protein-coding genes, At3g60180.1 (P-loop containing nucleoside triphosphate hydrolases superfamily protein) and Gene At3g60190.1 (DL1E)
MM547	3	23215509	23218355	Gene At3g62750.1(BGLU8) and At3g62760.1 (glutathione transferase)
MM550	4	788271	788751	Protein-coding gene At4g01830.1 PGP5 P-glycoprotein 5
MM551	4	1312610	1315610	Transposable element gene At4g02960.1
MM552	4	1447714	1448102	Transposable element gene At4g03300.1
MM553	4	1592613	1594726	Gene At4g03570.1
MM586	4	2356046	2357721	Gene At4g04653.1
tMM587	4	2596832	2603097	Protein-coding genes At4g05073 and At4g05076
MM654	4	5468765	5470776	Gene At4g08593.1
MM661	4	5588246	5589431	Gene At4g08593.1
MM665	4	5751470	5752399	Transposable element gene At4g08967.1
MM666	4	5766434	5769097	Gene At4g08990.1
MM678	4	6467386	6472846	Transposable element gene At4g10460.1
MM679	4	6723446	6729234	Transposable element genes At4g10980.1 and At4g10990.1
MM686	4	8313708	8319324	Transposable element gene At4g14460.1
MM689	4	8906581	8907231	Transposable element gene At4g15590.1
MM691	4	9483934	9485359	Transposable element gene At4g16870.1
MM693	4	9734038	9737673	Transposable element gene At4g17450.1
MM694	4	10527354	10529034	Pseudogene At4g19239.1 and gene At4g19240.1
MM695	4	10992797	10997912	Transposable element gene At4g20365.1
MM698	4	11363449	11369169	Transposable element gene At4g21360.1
MM699	4	11820310	11824620	Transposable element gene Atg22415.1
MM701	4	13624419	13631859	Transposable element genes At4g27200.1 and At4g27210.1
MM703	4	14987455	14988333	Intergenic region
MM704	4	17712926	17716726	Transposable element gene At4g37705.1
MM706	5	1686487	1686997	Protein-coding gene At5g05650.1
MM707	5	2262159	2262544	Protein-coding gene At5g07215.1
MM712	5	4320753	4323348	Protein-coding gene At5g05650.1
MM713	5	5635294	5635620	Intergenic region
MM715	5	6433688	6438813	Transposable element gene At5g19165.1
MM716	5	7027577	7028347	Transposable element gene At5g20750.1
MM718	5	7823819	7824639	Intergenic region
MM719	5	8574747	8577717	Transposable element gene At5g24915.1
MM721	5	8666296	8667301	Intergenic region
MM722	5	8788121	8788791	ACT-like superfamily protein gene At5g25320.1
MM724	5	9206569	9207339	Protein-coding gene At5g26270.2
MM725	5	9412161	9414631	Transposable element gene At5g26775.1
MM726	5	9561317	9563131	Transposable element gene At5g27160.1
MM728	5	9712277	9712777	Transposable element gene At5g27505.1
MM731	5	9929045	9929765	Transposable element gene At5g27905.1
MM734	5	10049721	10056270	Protein-coding gene At5g28052.1 and transposable element gene At5g28053.1
MM744	5	10351503	10356268	Transposable element At5g28405.1
MM823	5	13656931	13661362	Transposable element gene At5g35425.1
MM825	5	13753476	13758196	Transposable element gene At5g35575.1
MM827	5	13805059	13806068	Gene At5g35605.1 (tRNA-Arg)
MM832	5	13901149	13908033	Protein-coding genes At5g35735.1 (Auxin-responsive family protein) and At5g35737.1
MM837	5	14130621	14135451	Gene At5g35980.1 yeast YAK1-related
MM845	5	15663492	15668447	Protein-coding genes At5g39130.1 (RmlC-like cupins superfamily protein) and At5g39140.1
MM849	5	15736222	15737247	Protein-coding gene At5g39290.1 (Alpha-Expansin Gene Family)
MM853	5	15937735	15939668	Protein-coding genes At5g39810.1 (AGL98) and At5g39820.1 (NAC094)
MM854	5	16674280	16675285	Protein-coding gene At5g41690.1 (RNA binding gene)
MM859	5	17613965	17620413	Protein-coding genes AT5G43810.1 (AGO10), AT5G43822 and AT5G43820 (Pentatricopeptide repeat (PPR) superfamily protein)
MM862	5	18488790	18489135	Transposable element gene AT5G45600.1 (YEATS family protein)
MM863	5	18667661	18667936	Intergenic region
MM865	5	19378317	19379292	Protein-coding genes At5g47840.1 (adenosine monophosphate kinase AMK2) and At5g47850.1 (CCR4 Protein kinase)
MM867	5	21391149	21392149	Protein-coding genes At5g52780.1 and At5g52790.1