

S4 Table. Description of differentially methylated regions (DMRs) occurring in annotated promoter and gene body sequences of the *Populus trichocarpa* genome.

DMR gene IDs	annotation	higher methylation site	^m C context
<i>POPTR_0001s01660g</i>	NBS-LRR resistance gene-like protein ARGH35	Wallstawe	CHG & CHH
<i>POPTR_0001s06110g</i>	dirigent-like protein, regulates coupling of monolignol plant phenols to generate the cell wall polymers lignins and lignans that are involved in structural fortification and defense against pathogens	Wallstawe	CHH
<i>POPTR_0001s17820g</i>	DNA polymerase III	Wallstawe	CHG
<i>POPTR_0001s19460g</i>	zinc knuckle – zinc ion binding, nucleic acid binding	Anderlingen	CHG
<i>POPTR_0001s42010g</i>	catalytic domain of protein kinases	Wallstawe	CHH
<i>POPTR_0002s03260g</i>	horseradish peroxidase and related secretory plant peroxidases	Anderlingen	CHG & CHH
<i>POPTR_0002s07850g</i>	component of the thylakoid-localized Sec system involved in the translocation of cytoplasmic proteins into plastid	Wallstawe	CHG
<i>POPTR_0002s23200g</i>	aconitate hydratase, encodes a aconitase that can catalyze the conversion of citrate to isocitrate through a cis-aconitate intermediate, indicating a role in the response to oxidative stress	Wallstawe	CHG
<i>POPTR_0003s12640g</i>	glycosyl hydrolase family 32, beta-fructosidases	Wallstawe	CHH
<i>POPTR_0005s01450g</i>	PPR repeat family, DYW family of nucleic acid deaminases	Wallstawe	CHH
<i>POPTR_0005s08440g</i>	NAC domain protein	Wallstawe	CHG
<i>POPTR_0005s11730g</i>	AAA+ superfamily represents an ancient group of ATPases belonging to the ASCE division of the P-loop NTPase fold	Anderlingen	CHH
<i>POPTR_0006s02510g</i>	glutathione S-transferases	Anderlingen	CHH

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<i>POPTR_0006s09150g</i>	aldo-keto reductases, a superfamily of soluble NAD(P)(H) oxidoreductases whose chief purpose is to reduce aldehydes and ketones to primary and secondary alcohols	Anderlingen	CHG & CHH
<i>POPTR_0006s18990g</i>	effector domain of the CAP family of transcription factors, members include CAP (or cAMP receptor protein (CRP)), which binds cAMP, FNR (fumarate and nitrate reduction)	Anderlingen	CHH
<i>POPTR_0006s20500g</i>	elongation factor Tu family protein	Wallstawe	CHG
<i>POPTR_0006s22680g</i>	NAD(P)-binding Rossmann-like domain	Anderlingen	CHG
<i>POPTR_0008s18840g</i>	chromosome segregation protein	Wallstawe	CHG
<i>POPTR_0009s09810g</i>	UDP-glucosyl transferase	Anderlingen	CHG
<i>POPTR_0009s17130g</i>	lectin L-type, legume lectins	Wallstawe	CpG & CHH
<i>POPTR_0010s05110g</i>	catalytic domain of protein kinases	Anderlingen	CHG
<i>POPTR_0010s20390g</i>	peptidases S8 3	Wallstawe	CHH
<i>POPTR_0011s15760g</i>	S-locus glycoprotein family	Wallstawe	CHH
<i>POPTR_0011s15770g</i>	galactose mutarotase-like	Wallstawe	CHH
<i>POPTR_0014s01810g</i>	peroxisomal membrane 22 kDa family protein	Anderlingen	CHG & CHH
<i>POPTR_0014s18950g</i>	glycosyltransferase like family	Wallstawe	CpG
<i>POPTR_0015s09330g</i>	galactinol-sucrose galactosyltransferase	Anderlingen	CHH
<i>POPTR_0016s021501g</i>	glycosyltransferase family 28 C-terminal domain	Wallstawe	CHG
<i>POPTR_0016s04630g</i>	cysteine/histidine-rich C1 domain family protein	Anderlingen	CHH
<i>POPTR_0017s03570g</i>	transcription factor Tfb4, TFIIH (subunit of the general transcriptions factors for promotor recognition and initiation of transcription)	Anderlingen	CHG
<i>POPTR_0017s04440g</i>	leucine-rich repeat receptor-like protein kinase	Wallstawe	CHG & CHH & CpG
<i>POPTR_0017s06300g</i>	AAA+ superfamily represents an ancient group of ATPases belonging to the ASCE division of the P-loop NTPase fold	Wallstawe	CHH
<i>POPTR_0019s00260g</i>	LRR 8, leucine rich repeat	Anderlingen	CHH