

dCAPS GENOTYPING FOR 2010 PROJECT

by Dr. Rebecca Lamb (lamb.129@osu.edu)

GENE/ Allele	FORWARD PRIMER (5' to 3')	REVERSE PRIMER (5' to 3')	ENZYME	DESCRIPTION	SOURCE
<i>MS1/ ms1-1</i>	GCCATTCATCGAC CCTTG TG	CGTGTGTGTTTGGC TGGTTGGACA	RsaI	2870 bp product WT cuts; <i>ms1-1</i> does not	Wilson et al., 2001. The Plant Journal 28(1): 27-39
<i>WUS/ wus1-1</i>	AGTAGCCATGTCTA TGGATCCATG	GTGCATAGGGAAG AGAGGAAGC	NcoI	312 bp product WT cuts to form a product of 292 bp <i>wus-1</i> does not cut	R. S. Lamb
<i>SPT/ spt-2</i>	TGTTTATCTTTCTTG TAACAGACCA	ATAGACTGGTTTT AGGATTTTGG	ScrFI	305 bp product WT cuts to form a product of 281 bp <i>spt-2</i> does not cut	R. S. Lamb
<i>CAL/ cal-1</i>	GAGAAGTAAGAAA ACGTACGATGAAAC TACTTG	TTGTTTTGCCTTA GGATGTTTTCCCTC TC	MboII	318 bp product <i>cal-1</i> cuts to produce a 299 bp fragment WT doesn't cut	M. Yang
<i>EGL3/ egl3-1</i>	CGCAGTTTCAGTTC GAAACATTC C ATG	CCCCACTCCAACA CTCTCGTTTAG	NcoI	272 bp product WT is cut by <i>NcoI</i>	M. Yang
<i>GL3/ gl3-1</i>	CCATCAGTTAATTC TCGGACT G	GAAGAATCGATTA TATAAATATACCTT GTTG	PstI	322 bp product PstI cuts WT, not <i>gl3-1</i>	M. Yang
<i>API/ ap1-1</i>	GTATGGAGAAGATA CTTGAACGACGTC	GCAAGTCTTCCCC AAGATAAGGC	StuI	360 bp product WT product is cut by <i>StuI</i> to 338bp <i>ap1-1</i> not cut	E. Chae Yale University

All primers were designed, if possible, to amplify a region that includes an intron or within an intron, to allow the differentiation between genomic copies and cDNA containing transgenes. Product lengths noted are always for genomic DNA. Residues in bold = introduced mismatches designed to introduce the restriction enzyme cut site.