

A = Ac7077 marker; B = B73 marker

Polymorphism & detection method	Primers	Polymorphisms between Ac7077 and B73
		<i>Ds2(D1)</i> in <i>bz</i> exon2 @ 336
Tour <i>Zm7</i> & <i>Ins4</i> MITEs by 1% agarose	<i>bz</i> -H1 + <i>bz</i> -H3	Ac7077 MITEs in <i>bz-stc1</i> IGR @1146-1847
Ac7077 <i>bz-stc1</i> IGR by 1% agarose	<i>bz</i> -H1 + <i>stc1</i> -H1	Ac7077 <i>bz-stc1</i> IGR; no Tekay @ 2690
MITE <i>Ins6</i> by 1% agarose	<i>stc1</i> -H6F1 + <i>stc1</i> -H6R1	<i>Ins6</i> in <i>stc1</i> intr. 3 @ 5270
Indel @ 6500 by sequencing	<i>stc1</i> -RSF6F + <i>stc1</i> RSR2	3-bp indel in <i>stc1</i> exon 2 @ 6500
Indel @ 7436 by sequencing		9-bp indel in <i>stc1-rpl</i> IGR @ 7436
3 SNPs @ primer site by 1% agarose	<i>stc1</i> -PF4 + LHRpl-R4	SNPs @ 7500-7575 in <i>stc1-rpl35A</i> IGR
Indel @ 7740 by 1% agarose	<i>stc1</i> -PF4+ <i>rpl35A</i> -R1	Indel @ 7740 in <i>stc1-rpl35A</i> IGR
SNP @ 11707 (BglII) by 1% agarose	<i>rpl35A</i> -4 + <i>tac6058</i> -2/Bgl II	SNP @ 11707 (BglII) in <i>tac6058</i>
SNP @ 12721 (SphI) by 8% PAGE	LHtac6058 + LHihpR4/SphI	SNP @ 12721 (SphI) in <i>hypro1</i>
<i>Ins11</i> @ 14400 by 1% agarose	1hp8 + LH1hp-R1	<i>Ins11</i> @ 14400 in B <i>hypro1-znf</i> IGR
MITE Tourist <i>Zm10</i> @ 15833-16014 by 1%	<i>zm20F1</i> + R1	Tourist- <i>Zm10</i> @ 15833 in M <i>hypro1-znf</i> IGR
<i>Ins7</i> @ 17570-17980 by 1% agarose	<i>zm3F2</i> + <i>zm3R2</i>	<i>Ins7</i> @ 17570 in M <i>hypro1-znf</i> IGR
SNP @ 81935 by 1% agarose	<i>znf</i> -F2 + <i>znfgR1</i> SNP in <i>znfgR1</i> primer	SNP @ 81935 in <i>znf</i>
Indel @ 82753 by 8% PAGE	1st: <i>znf</i> -hAT-F3+R3 2nd: <i>znf</i> -hAT-F1+R1	Indel @ 82753 beyond <i>znf</i> polyA
Indel @ 82924 & SNP @ 83020 by sequencing	<i>znf</i> -hAT-F3+R3	Indel @ 82924 & SNP @ 83020 3' of <i>znf</i>
SNP @ 83268 by sequencing	<i>znf</i> -hAT-R3rev+ <i>znf</i> -F5Rev	SNP @ 83268 in <i>znf-Grande1</i> IGR
SNP @ 84000 by sequencing	<i>znf</i> -F5+ <i>znf</i> -3-R1	SNP @ 84000 in <i>znf-Grande1</i> IGR
SNP @ 98132 by sequencing	GtacF3+GtacR3	SNP @ 98132
Indel @ 98868 by 8% PAGE	B73tac7077F2+B73tac7077R1	Indel @ 98868
Ac7077 insertion site @ 92240 by 1% agarose	<i>tac7077F1</i> +Ac4372	Ac7077 @ 92240

Supplemental Table 2. *bz-tac7077* recombination in *bz-m2(D1)* Ac7077/Bz-B73 + heterozygotes

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Polymorphisms between Ac7077 and B73	<p>Ds2(D1) in <i>bz</i> exon2 @ 336                      Ac7077 MITEs in <i>bz-stc1</i> IGR @1146-1847                      Ac7077 <i>bz-stc1</i> IGR; no Tekay @ 2690  <i>Ins6</i> in <i>stc1</i> intr. 3 @ 5270                      3-bp indel in <i>stc1</i> exon 2 @ 6500                      9-bp indel in <i>stc1-rpl</i> IGR @ 7436                      SNPs @ 7500-7575 in <i>stc1-rpl35A</i> IGR                      Indel @ 7740 in <i>stc1-rpl35A</i> IGR                      SNP @ 11707 (BglII) in <i>tac6058</i>                      SNP @ 12721 (SphI) in <i>hypro1</i>  <i>Ins11</i> @ 14400 in B <i>hypro1-znf</i> IGR  <i>Tourist-Zm10</i> @ 15833 in M <i>hypro1-znf</i> IGR  <i>Ins7</i> @ 17570 in M <i>hypro1-znf</i> IGR                      SNP @ 81935 in <i>znf</i>                      Indel @ 82753 beyond <i>znf</i> polyA                      Indel @ 82924 &amp; SNP @ 83020 3' of <i>znf</i>                      SNP @ 83268 in <i>znf-Grande1</i> IGR                      SNP @ 84000 in <i>znf-Grande1</i> IGR                      SNP @ 98132                      Indel @ 98868                      Ac7077 @ 99240</p>																			
Total	0	0	15	31	0	2	0	5	5	0	0	2	0	3	0	1	10	11	1	1
D4269-3-2	A	A	A	B																
D4269-15-1	A	A	A	B																
D4269-15-2	A	A	A	B																
D4269-16-2	A	A	A	B																
D4269-23-1	A	A	A	B																
D4269-23-5	A	A	A	B																
D4269-27-1	A	A	A	B																
D4267-6-2	A	A	A	B																
D4267-8-1	A	A	A	B																
D4268-2-3	A	A	A	B																
D4268-12-3	A	A	A	B																
D4268-13-1	A	A	A	B																
D4268-14-1	A	A	A	B																
D4268-25-2	A	A	A	B																
D4268-28	A	A	A	B																
Subtotal ( <i>stc1-2690-Ins6-5270</i> )			15																	
D4267-4-3	A	A	A	B																
D4268-3	A	A	A	B																
D4268-13-3	A	A	A	B																
D4268-23	A	A	A	B																
D4268-26	A	A	A	B																
D4267-4-1	A	A	A	B																
D4267-9-1	A	A	A	B																
D4268-4	A	A	A	B																
D4268-5-1	A	A	A	B																
D4268-8	A	A	A	B																
D4268-10-2	A	A	A	B																
D4268-12-2	A	A	A	B																
D4268-15-1	A	A	A	B																
D4268-25-1	A	A	A	B																
D4268-15-4	A	A	A	B																
D4268-21-4	A	A	A	B																
D4269-1	A	X	X	B																
D4269-3-1	A	X	X	B																
D4269-5	A	A	A	B																
D4269-7-2	A	A	A	B																
D4269-12	A	A	A	B																
D4269-18	A	A	A	B																
D4269-22-1	A	A	A	B																
D4269-23-2	A	A	A	B																
D4269-23-4	A	A	A	B																
D4269-25-3	A	A	A	B																
D4269-25-4	A	A	A	B																
D4269-25-5	A	A	A	B																
D4269-27-2	A	X	X	B																
D4269-29-2	A	A	A	B																
D4269-40	A	X	X	B																
Subtotal ( <i>Ins6-5270</i> indel-6500)				31																
D4268-18-1	A	A	A	B																
D4267-2	A	A	A	B																
Subtotal (Indel-7440--indel-7740)									2											
D4269-2	A	A	A	B																
D4269-25-2	A	A	A	B																
D4269-46	A	A	A	B																
D4268-6-3	A	A	A	B																
D4267-8-3	A	A	A	B																
Subtotal (Indel-8220--SNP-11710)									5											

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