表 1 用于优化 SSR 反应体系的影响因子

Table 1 The influencing factors used in optimizing SSR amplification system

影响因子 Factors	浓度 Concentration				
	A	B	C	D	E
Mg^{2+} (mmol/L)[a]	1.4, 1.8, 2.2, 2.6	1.8	1.8	1.8	1.8
Dntp (mmol/L)[a]	0.2	0.1, 0.15, 0.2, 0.25, 0.3, 0.35	0.25	0.25	0.25
引物 (μmol/L) Primer (μmol/L)[a, b]	0.1	0.1	0.06, 0.1, 0.14, 0.18	0.14	0.14
DNA (ng/μL)[a, c]	20	20	20	10, 20, 30, 40	30
Taq 酶(U) Taq DNA polymerase dosage (U)[a]	1	1	1	1	0.5, 1, 1.5, 2

注: a: 母液浓度: 引物为 10 μmol/L, 10×buffer (含镁离子浓度 18 mmol/L), dNTP 浓度为 2.5 mmol/L, 模板 DNA 为 10 ng/μL; b: 引物序列: 断穗引物 Xgwm161 (前引物序列(5' to 3'), GATCGAGTGATGGCAGATGG; 后引物序列(5' to 3'), TGTGAATTACTTGGACGTGG; 退火温度 60℃); 抗病引物 Xgwm582 (前引物序列(5' to 3'), AAGCACTACGAAAATATGAC; 后引物序列(5' to 3'), TCTTAAGGGGTGTTATCATA; 退火温度 50℃); c: 模板 DNA: 来自龙陵顶芒大河头小麦(保存编号: 云 0005, XM0912); A: 这个反应体系下 Mg^{2+}浓度的设了四个浓度梯度的实验; B: 这个反应体系下 dNTP 浓度的设了六个浓度梯度的实验; C: 表示这个反应体系下引物浓度的设了四个浓度梯度的实验; D: 表示这个反应体系下 DNA 浓度的设了四个浓度梯度的实验; E: 表示这个反应体系下 Taq 酶浓度的设了四个浓度梯度的实验

Note: a: Liquor concentration: primer 10 μmol/L, 10×buffer (Mg^{2+} concentration 18 mmol/L), dNTP concentration 2.5 mmol/L and template DNA concentration 10 ng/μL; b: Primer sequence: Left (5' to 3') of Xgwm161 brittle rachis primer is GATCGAGTGATGGCAGATGG and Right (5' to 3') is TGTGAATTACTTGGACGTGG (Tm is 60℃); left of Xgwm582 of resistance stripe rust primer is AAGCACTACGAAAATATGAC and Right is TCTTAAGGGGTGTTATCATA (Tm is 50℃); c: Template DNA: Long Lin Ding Mang Da He Tou Wheat (Preservation No: Yun0005, XM0912); A:The experimant of four Mg^{2+} concentration gradients in the SSR amplification system; B: The experimant of six dNTP concentration gradients in the SSR amplification system; C: The experimant of four Primer concentration gradients in the SSR amplification system; D: The experimant of four DNA concentration gradients in the SSR amplification system; E: The experimant of four Taq DNA polymerase dosage concentration gradients in the SSR amplification system