

Table S1. The survey of all polymorphic microsatellite markers used for *R* genes identification on chromosomes 1H to 7H for powdery mildew resistance in accession PI296825 of the species *Hordeum vulgare* subsp. *spontaneum*

Chromosome	Marker	Position ^A (cM)	Chromosome	Marker	Position ^A (cM)
1H	<i>Bmac0213</i> ^B	30.8	5H	<i>Bmag0223</i> ^B	86.9
	<i>Bmag0347</i> ^B	53.3		<i>EBmac0003</i> ^B	127.7
	<i>GBMS014</i> ^C	57.8		<i>GMS027</i> ^C	135.9
	<i>Bmag0345</i> ^B	58.6		<i>UMB712</i> ^D	173.0
	<i>Bmag0211</i> ^B	60.4		<i>GMS001</i> ^C	183.3
	<i>Bmag0770</i> ^B	60.4	6H	<i>Bmac0316</i> ^B	7.2
	<i>EBmac0501</i> ^B	64.8		<i>Bmag0500</i> ^B	31.7
	<i>Bmac0063</i> ^B	72.5		<i>EBmac0674</i> ^B	62.0
	<i>Bmag0382</i> ^B	99.7		<i>Bmac0040</i> ^B	113.2
	<i>UMB502</i> ^D	113.0		<i>GBM1274</i> ^C	123.5
	<i>WMC1E8</i> ^B	131.9	7H	<i>HVPLASC1</i> ^B	2.7
2H	<i>GBMS002</i> ^C	37.9		<i>GBM1060</i> ^{C*}	8.8
	<i>MGB391</i> ^C	45.0		<i>Bmag0767</i> ^B	9.7
	<i>Bmag0692</i> ^B	46.2		<i>GBMS192</i> ^{C*}	10.1
	<i>EBmac0684b</i> ^B	69.6		<i>Bmag0206</i> ^B	15.3
	<i>Bmag0518</i> ^B	72.0		<i>Bmag0007</i> ^B	20.6
	<i>Bmag0378</i> ^B	76.1		<i>EBmac0603</i> ^B	35.4
	<i>Bmag0125</i> ^B	89.8		<i>EBmac0016</i> ^B	64.8
	<i>EBmac0415</i> ^B	117.9		<i>Bmac0187</i> ^B	72.6
	<i>EBmag0793</i> ^B	124.1		<i>Bmag018</i> ^B	79.1
	<i>GBM1475</i> ^C	149.5	<i>Bmag0321</i> ^B	79.2	
3H	<i>EBmac0705</i> ^B	20.5	<i>Bmag0516</i> ^B	79.3	
	<i>Bmag0225</i> ^B	75.5	<i>Bmac0162</i> ^B	80.3	
	<i>EBmac0541</i> ^B	137.2	<i>EBmac0785</i> ^B	80.6	
	<i>HVM62</i> ^B	139.4	<i>EBmac0827</i> ^B	80.6	
	<i>EBmag0705</i> ^B	145.4	<i>Bmag0011</i> ^B	81.8	
	<i>K00088</i> ^E	162.2	<i>Bmag0507</i> ^B	84.1	
4H	<i>GBM1221</i> ^C	14.7	<i>Bmag0385</i> ^B	88.2	
	<i>HvOle</i> ^B	45.8	<i>Bmag0120</i> ^B	97.0	
	<i>HVM03</i> ^B	58.3	<i>Bmac0156</i> ^B	136.4	
	<i>Bmac0181</i> ^B	58.5	<i>HVM49</i> ^B	139.7	
	<i>Bmac0030</i> ^B	58.6	<i>EBmag0757</i> ^B	142.0	
	<i>Bmag0490</i> ^B	62.2	<i>HVPRP1B</i> ^B	149.0	
	<i>EBmac0775</i> ^B	64.4			
	<i>EBmac0635</i> ^B	93.1			
	<i>EBmac0701</i> ^B	96.2			
	<i>EBmac0788</i> ^B	97.7			
<i>GBM1448</i> ^C	113.2				

^Amap position as reported by VARSHNEY *et al.* (2007) Theoretical and Applied Genetics, **114**, 1091–1103; ^BRAMSAY *et al.* (2000) Genetics, **156**, 1997–2005; ^CIPK Gatersleben; ^DBEAUBIEN and SMITH (2006) Barley Genetics Newsletter, **36**, 30–43; ^EROSSI *et al.* (2006) Molecular Breeding, **18**, 355–366; *markers used in TGGE