Electronic supplementary material

Diversity and pre-breeding prospects for local adaptation in oat genetic resources

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Table S1 Description of the employed microsatellite markers.

Table S1. Description of the employed microsatellite markers

Marker name	Original name	Repetition unit	PCR product length (bp)	Tm[1]	Linkage group	Reference
AM1	AM1	(AG)21(CAGAG)6	155-225	46°C	1	Li et al. (2000)
AM2	AM2	(AG)24	11-169	49°C		Li et al. (2000)
AM3	AM3	(AG)35	259-329	51°C		Li et al. (2000)
AM4	AM4	(AG)34	147-269	48°C		Li et al. (2000)
AM25	AM25	(AC)8(AC)4(CT)4	215-233	47°C	OM2	Li et al. (2000)
AM22	AM22		125-139		OT-32-33	Li et al. (2000)
AM42	AM42	(GAA)16	183-207	45°C	3, 4	Li et al. (2000)
AM47	AM47	(AC)14	265-267	50°C		Li et al. (2000)
AM84	AM84	(AC)9	128	55°C		Pal et al. (2002)
AM54	AM54	(AC)9	165-181	47°C		Li et al. (2000)
AM102	AM102	(AC)9	204-220	55°C	OT1	Pal et al. (2002)
AM83	AM83	(AC)11	186-192	55°C	OT16	Pal et al. (2002)
AM92	AM92	(AC)13	115-161	60°C		Pal et al. (2002)
AM87	AM87	(AC)13	135-167	55°C	OT16	Pal et al. (2002)
AM112	AM112	(AG)3(AC)9(AT)8	235-295	55°C	OT12	Pal et al. (2002)
AM103	AM103	(AC)16	181-193	58°C		Pal et al. (2002)
AM104	AM104	(AG)36	186	55°C		Pal et al. (2002)
AM107	AM107	(AC)3(AC)4	268	58°C		Pal et al. (2002)
AM95	AM95	(AC)13	233	55°C		Pal et al. (2002)
AM114	AM114	(AG)24(AC)14	183-365	55°C		Pal et al. (2002)
AM115	AM115	(AC)9	209-213	55°C	23	Pal et al. (2002)
AM201	AF237553		277	60°C	OT4	Oliver et al. (2010)
AM202	M38722		305-340	60°C	OT20-29	Oliver et al. (2010)
AM203	AB_SSR1	(GTA)8	345-349	60°C	OT31	Oliver et al. (2010)
AM204	AB_SSR5	(TA)4	401	60°C	OT20-29	Oliver et al. (2010)
AM205	AB_SSR7	(ATC)3-(ATC)3	255	55°C	OT27	Oliver et al. (2010)
AM206	AF033096	(ATGGA)3	124-130	60°C		Holland et al. (2001)
AM207	AF033097	(TGTA)3	1884	60°C		Holland et al. (2001)
AM208	L39777	(AAAT)3	178-198	60°C		Holland et al. (2001)

Table S1. Continued

Marker name	Original name	Repetition unit	PCR product length (bp)	Tm[1]	Linkage group	Reference
AM209	M18822	(ATT)3	149	60°C		Holland et al. (2001)
AM210	M83381	(GCA)4-(CAA)5-(AGC)2	232-262	55°C		Holland et al. (2001)
AM211	X03244	(CAC)4	202	60°C		Holland et al. (2001)
AM212	X74740	(CTAACAG)3	182	60°C		Holland et al. (2001)
AM213	Z48431	(CCA)2-(GCC)2-(CAG)4-(GTC)4	268	60°C		Holland et al. (2001)
AM214	Z48429	(GGC)5-(GCG)5	279-281	55°C		Holland et al. (2001)
AM215	AJ010728		164-214	60°C		Holland et al. (2001)
AM216	AJ0107291		253-283	60°C		Holland et al. (2001)
AM217	AJ0107292		155-205	55°C		Holland et al. (2001)
AM218	X176372		188-194	60°C		Holland et al. (2001)
AM219	X176373		187-201	60°C		Holland et al. (2001)
AM220	X68648		298	60°C		Holland et al. (2001)
AM221	X74741		249-253	60°C		Holland et al. (2001)

[1] Tm, primer melting temperature

References

Holland, J.B.; Helland, S.J.; Sharopova, N.; Rhyne, D.C. Polymorphism of PCR-based markers targeting exons, introns, promoter regions, and SSRs in maize and introns and repeat sequences in oat. *Genome* **2001**, *44*, 1065-1076. https://doi.org/10.1139/g01-110

Li, C.D.; Rossnagel, B.G.; Scoles, G.J. The development of oat microsatellite markers and their use in identifying relationships among *Avena* species and oat cultivars. *Theor. Appl. Genet*. **2000**, *101*, 1259-1268. https://doi.org/10.1007/s001220051605

Oliver, R.E.; Obert, D.E.; Hu, G.; Bonman, J.M.; O´Leary-Jepsen, E.; Jackson, E.W. Development of oat-based markers from barley and wheat microsatellites. *Genome* **2010**, *53*, 458-471. https://doi.org/10.1139/G10-021

Pal, N.; Snadhu, J.S.; Domier, L.L.; Kolb, F.L. Development and characterisation of microsatellite and RFLP-derived PCR markers in oat. *Crop Sci*. **2002**, *42*, 912-918. https://doi.org/10.2135/cropsci2002.0912