

表 3 异黄酮含量相关 SSR 分子标记

Table 3 SSR markers associated with the contents of soybean isoflavones

异黄酮 Isoflavone	标记 SSR marker	P 值 P value	连锁群 Linkage group	位置 Position (cM)	相关 QTL 及分子标记等 QTL and SSR makers		
					QTL 或标记 (性状)	连锁群位置	参考文献
					QTL/Maker (Trait)	Position	Reference
大豆苷	sat_174	0.0048	I	31.38			
Daidzin	sat_259	0.0013	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al.
					qTOT16 (Total)	41.85	2010 Gutierrez-Gonzal et al. 2010
	satt151	0.0068	E	44.93			
乙酰大豆 苷 A- Daidzin	sat_174	0.0053	I	31.38			
丙二酰 大豆苷	satt155	0.0058	A1	32.69	qGLY5_2 (Glycitein)	32.40-33.81	Gutierrez-Gonzal et al.
					Satt155 (Genistein)	32.69	2011 Primomo et al. 2005
M-Daidzin	sat_156	0.0053	B1	35.00	Satt251 (Glycitin)	38.80	Meksem et al. 2001
					Satt251 (Glycitin)	38.80	Kassem et al. 2004
	sat_259	0.0036	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al.
					qTOT16 (Total)	41.85	2010 Gutierrez-Gonzal et al. 2010
染料木苷	satt565	0.0021	C1	5.74	qDAI4 (Daidzein)	10.45-20.97	Gutierrez-Gonzal et al. 2010

Genistin	sat_402	0.0009	C2	94.58	qDAI6 (Daidzein)	103.19-	Gutierrez-Gonzal et al. 2011
					qGEN6 (Genistein)	103.33	
					qTOT6 (Total)	98.15-100.91	Gutierrez-Gonzal et al. 2011
						98.15-100.91	
							Gutierrez-Gonzal et al. 2011
	satt289	0.0086	C2	103.42	Satt289 (Genistein)	103.42	Primomo et al. 2005
					qGLY6-2 (Glycitein)	103.20	Gutierrez-Gonzal et al. 2010
sat_315	0.0019	G	29.20				
sat_259	<.0001	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al. 2010	
				qTOT16 (Total)	41.85		
						Gutierrez-Gonzal et al. 2010	
sat_366	0.0076	J	57.95				
satt577	0.0017	B2	5.47				
satt436	0.0032	D1a	54.52	qDAI1 (Daidzein)	56.59	Gutierrez-Gonzal et al. 2010	
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丙二酰	sat_402	0.0005	C2	94.58			
染料木昔 M-Genistin	sat_259	0.0002	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al. 2010
					qTOT16 (Total)	41.85	
						Gutierrez-Gonzal et al. 2010	
	sat_366	0.0019	J	57.95			
	satt577	<.0001	B2	5.47			
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黄豆黄素	satt727	0.0013	K	40.10	Satt555/Satt178 (Daidzein)	35.75-37.82	Kassem et al., 2004

Glycitein					Sat_116 (Glycitein)	44.45	Meksem et al., 2001
					Satt337 (Glycitein)	38.93	Meksem et al., 2001
	satt436	0.0055	D1a	54.52			
	sat_293	0.0001	K	79.33	Satt196 (Glycitein)	83.24	Primomo et al., 2005
黄豆黄素	sat_402	0.0038	C2	94.58			
苷							
Glycitin	sat_263	0.0032	C2	118.77			
	sat_411	0.0055	B1	30.87			
	sat_156	0.0001	B1	35.00	Satt251 (Glycitin)	38.80	Meksem et al., 2001
					Satt251 (Glycitin)	38.80	Kassem et al., 2004
	sat_145	0.0049	O	34.66			
	sat_259	0.0082	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al.,
					qTOT16 (Total)	41.85	2010
							Gutierrez-Gonzal et al.,
							2010
	satt151	0.006	E	44.93			
	satt197	<.0001	B1	49.07	Satt197 (Glycitin)	49.07	Meksem et al., 2001
					Satt197 (Glycitin)	49.07	Kassem et al., 2004
	sat_266	0.006	N	39.72	Satt080 (Glycitin)	43.69	Kassem et al., 2004
					Satt080 (Daidzein)	43.69	Meksem et al., 2001
	satt463	0.0009	M	46.27	Satt245 (Daidzein,	49.03	Primomo et al., 2005
					Genistein, Total)		
	satt669	0.0062	D2	67.70			

乙酰黄豆	sat_402	0.0013	C2	94.58			
黄素苷	sat_259	0.0003	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al., 2010
					qTOT16 (Total)	41.85	Gutierrez-Gonzal et al., 2010
A-Glycitin	sat_366	0.0021	J	57.95			
	satt577	0.0002	B2	5.47			
总含量	satt155	0.0085	A1	32.69	qGLY5_2 (Glycitein)	32.40-33.81	Gutierrez-Gonzal et al., 2011
Total					Satt155 (Genistein)	32.69	Primomo et al., 2005
	sat_156	0.0063	B1	35.00	Satt251 (Glycitin)	38.80	Meksem et al., 2001
					Satt251 (Glycitin)	38.80	Kassem et al., 2004
	sat_259	<.0001	J	44.05	qDAI16 (Daidzein)	41.85	Gutierrez-Gonzal et al., 2010
					qTOT16 (Total)	41.85	Gutierrez-Gonzal et al., 2010
	sat_366	0.0056	J	57.95			