

Table S1. Identities of sequences between the KC545952 and 44 other HMW-GS genes from *Triticum* species.

HMW-GS alleles	GenBank accession	Species	Genome	The size of ORF (bp)	Identity(%)		
					KC545952	KC545956	KC545955
1Ay active genes	KC545952	<i>T. aestivum</i> ssp. <i>aestivum</i> (TaAy7-40)	AABBDD	1830		99.2	96.2
	KC545956	<i>T. turgidum</i> ssp. <i>dicoccoides</i> (D97)	AABB	1830	99.2		96.2
	JF519636	<i>T. turgidum</i> ssp. <i>dicoccoides</i>	AABB	1830	99.5	99.5	96.6
	FJ404595	<i>T. urartu</i>	AA	1830	97.6	97.6	95.7
	EU984503	<i>T. urartu</i>	AA	1830	97.5	97.4	95.6
	AM183223	<i>T. urartu</i>	AA	1830	97.3	97.2	95.5
	AY245578	<i>T. urartu</i>	AA	1830	97.3	97.3	95.4
	JQ318694	<i>T. monococcum</i> ssp. <i>monococcum</i>	AA	1812	96.7	96.7	96.6
	EU984504	<i>T. urartu</i>	AA	1767	94.5	94.4	94.5
	EU984507	<i>T. monococcum</i> ssp. <i>aegilopoides</i>	AA	1767	94.2	94.3	94.3
	EU984511	<i>T. turgidum</i> ssp. <i>dicoccum</i>	AABB	1767	94.2	94.3	94.3
	AJ306977	<i>T. timopheevii</i> ssp. <i>timopheevii</i>	AAGG	1767	93.8	93.8	93.9
	JQ318695	<i>T. monococcum</i> ssp. <i>monococcum</i>	AA	1935	85.2	85.3	78.2
	EU984506	<i>T. monococcum</i> ssp. <i>aegilopoides</i>	AA	1899	86.4	86.5	84.4
1Ay pseudogenes	JQ007586	<i>T. turgidum</i> ssp. <i>dicoccum</i>	AABB	1830	97.9	98.0	95.9
	JQ007590	<i>T. turgidum</i> ssp. <i>dicoccum</i>	AABB	1830	97.9	98.0	95.9
	AY260548	<i>T. turgidum</i> ssp. <i>dicoccum</i>	AABB	1830	97.7	92.0	95.7
	EU984510	<i>T. turgidum</i> ssp. <i>dicoccum</i>	AABB	1830	97.5	97.5	95.5
	AY722710	<i>T. turgidum</i> ssp. <i>polonicum</i>	AABB	1812	97.5	97.6	98.3
	AY303766	<i>T. aestivum</i> ssp. <i>spelta</i>	AABBDD	1830	97.5	97.4	95.5
	DQ537335	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	1812	97.7	97.65	98.5
	X03042	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	1812	97.7	97.7	98.5
	HQ846968	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	1803	96.8	96.8	97.6
	AY260549	<i>T. turgidum</i> ssp. <i>dicoccum</i>	AABB	1830	97.2	97.1	95.2
	HM131807	<i>T. timopheevii</i> ssp. <i>araraticum</i>	AAGG	1866	96.9	96.9	94.5
	JQ689003	<i>T. turgidum</i> ssp. <i>durum</i>	AABB	1830	97.5	97.4	95.5
	KC545955	<i>T. aestivum</i> ssp. <i>aestivum</i> (CN16)	AABBDD	1791	96.2	96.2	
	AY245579	<i>T. urartu</i>	AA	1920	92.0	92.0	90.1
	EU984505	<i>T. urartu</i>	AA	1920	92.8	92.7	90.9
	GQ184456	<i>T. monococcum</i> ssp. <i>monococcum</i>	AA	1953	84.3	84.2	78.0
	HQ834309	<i>T. monococcum</i> ssp. <i>monococcum</i>	AA	1953	83.9	83.9	77.8
	EU984509	<i>T. monococcum</i> ssp. <i>aegilopoides</i>	AA	1899	86.3	86.36	84.3
1By8	JF736014	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2166	62.2	62.1	63.9
1By9	X61026	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2121	64.3	64.1	67.0
1By18	KF430649	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2166	62.2	62.1	63.9
1Dy10	AB281268	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	1950	60.7	60.9	73.1
1Dy12	BK006459	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	1977	70.7	70.7	66.9
1Ax1	X61009	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2496	43.5	41.0	36.7

1Ax1	KC167176	<i>T. turgidum</i> ssp. <i>dicoccoides</i>	AABB	2496	46.6	42.6	37.5
1Ax1	JQ689002	<i>T. turdidum</i> ssp. <i>durum</i>	AABB	2481	44.7	39.3	37.2
1Bx7	DQ119142	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2388	36.4	36.4	38.8
1Bx17	AB263219	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2244	34.1	34.55	36.3
1Bx20	AJ437000	<i>T. turgidum</i> ssp. <i>durum</i>	AABB	2391	38.6	39.6	36.8
1Dx2	BK006460	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2511	37.3	37.3	43.8
1Dx5	KJ144185	<i>T. aestivum</i> ssp. <i>aestivum</i>	AABBDD	2523	37.7	37.1	38.7
