

Table S1. Physicochemical properties of WRKY transcription factors in *Rhododendron simsii*.

Gene ID	Gene name	Length	MW	pI	AI	GRAVY	Subcellular localization
Rhsim01G0033600	RsWRKY1	397	43507.84	9.07	61.64	-0.763	Nucleus
Rhsim01G0241100	RsWRKY2	548	60491.94	8.44	43.27	-0.965	Nucleus
Rhsim01G0268400	RsWRKY3	346	38661.99	9.75	70.98	-0.703	Nucleus
Rhsim02G0002700	RsWRKY4	213	24291.62	9.44	49.39	-0.559	Nucleus
Rhsim02G0146200	RsWRKY5	293	32787.62	5.71	56.86	-0.829	Nucleus
Rhsim02G0213700	RsWRKY6	316	34943.16	5.57	65.70	-0.658	Nucleus
Rhsim02G0213800	RsWRKY7	291	31898.76	7.57	70.07	-0.615	Nucleus
Rhsim03G0153300	RsWRKY8	315	34659.50	5.61	61.24	-0.649	Nucleus
Rhsim03G0192300	RsWRKY9	365	39330.27	4.94	58.85	-0.673	Nucleus
Rhsim03G0198800	RsWRKY10	382	41873.23	5.96	55.45	-0.757	Nucleus
Rhsim04G0007000	RsWRKY11	669	72732.2	5.8	53.41	-0.786	Nucleus
Rhsim04G0015000	RsWRKY12	579	62823.53	6.61	54.39	-0.709	Nucleus
Rhsim04G0052400	RsWRKY13	578	62485.31	6.54	62.23	-0.751	Nucleus
Rhsim04G0158500	RsWRKY14	292	32519.94	5.18	60.79	-0.796	Nucleus
Rhsim04G0240600	RsWRKY15	328	36685.79	6.19	46.62	-0.890	Nucleus
Rhsim05G0168200	RsWRKY16	545	59270.62	8.45	56.95	-0.743	Nucleus
Rhsim05G0226500	RsWRKY17	351	39397.12	8.62	39.74	-1.162	Nucleus
Rhsim05G0231400	RsWRKY18	330	36624.38	5.93	62.88	-0.735	Nucleus
Rhsim05G0231500	RsWRKY19	410	45369.44	6.41	63.24	-0.687	Nucleus
Rhsim06G0054700	RsWRKY20	331	36187.15	9.73	67.49	-0.539	Nucleus
Rhsim06G0156700	RsWRKY21	429	46482.07	8.36	56.34	-0.708	Nucleus
Rhsim06G0164400	RsWRKY22	540	58808.43	6.52	59.57	-0.684	Nucleus
Rhsim06G0174100	RsWRKY23	476	52130.14	6.61	54.89	-1.038	Nucleus
Rhsim06G0220000	RsWRKY24	478	52563.86	8.03	63.7	-0.656	Nucleus
Rhsim06G0226600	RsWRKY25	681	74141.16	6.31	65.87	-0.638	Nucleus
Rhsim06G0235700	RsWRKY26	716	77801.64	6.04	58.59	-0.775	Nucleus
Rhsim07G0005900	RsWRKY27	327	36699.90	5.34	59.36	-0.603	Nucleus
Rhsim07G0009800	RsWRKY28	223	25194.37	7.69	62.11	-0.770	Nucleus
Rhsim07G0010600	RsWRKY29	325	36112.15	5.61	53.14	-0.821	Nucleus
Rhsim07G0037500	RsWRKY30	125	14916.85	9.61	45.84	-1.154	Nucleus
Rhsim07G0083100	RsWRKY31	351	39662.88	5.89	57.49	-0.827	Nucleus
Rhsim07G0087300	RsWRKY32	129	14325.20	10.12	57.44	-0.858	Nucleus
Rhsim07G0225700	RsWRKY33	343	37245.96	9.25	65.07	-0.535	Nucleus
Rhsim08G0072700	RsWRKY34	557	61388.34	6.59	61.42	-0.733	Nucleus
Rhsim08G0098300	RsWRKY35	368	40581.11	9.36	71.30	-0.468	Nucleus
Rhsim08G0158800	RsWRKY36	559	60642.98	5.94	61.48	-0.721	Nucleus
Rhsim08G0205900	RsWRKY37	330	36437.58	8.44	64.70	-0.795	Nucleus
Rhsim10G0005100	RsWRKY38	176	20136.78	9.58	57.50	-0.812	Nucleus
Rhsim10G0147700	RsWRKY39	264	29901.62	8.68	58.37	-0.690	Nucleus
Rhsim10G0148600	RsWRKY40	115	12866.11	5.45	50.09	-0.972	Nucleus
Rhsim11G0062500	RsWRKY41	227	25450.47	6.75	66.65	-0.671	Nucleus
Rhsim11G0064200	RsWRKY42	214	24134.05	9.59	65.19	-0.857	Nucleus
Rhsim11G0120500	RsWRKY43	1661	190287.09	5.92	88.49	-0.318	Nucleus
Rhsim12G0007700	RsWRKY44	325	36659.89	6.94	41.72	-1.149	Nucleus
Rhsim12G0077700	RsWRKY45	535	57646.36	6.61	53.83	-0.813	Nucleus
Rhsim12G0094500	RsWRKY46	184	20827.28	9.52	50.82	-0.877	Nucleus
Rhsim12G0134800	RsWRKY47	471	51888.61	8.77	55.97	-0.739	Nucleus
Rhsim12G0187400	RsWRKY48	331	36676.08	8.69	63.63	-0.759	Nucleus

Rhsim13G0003300	RsWRKY49	333	37017.52	6.60	61.23	-0.648	Nucleus
Rhsim13G0061600	RsWRKY50	353	39625.09	9.76	66.54	-0.747	Nucleus
Rhsim13G0063200	RsWRKY51	562	61647.22	7.66	47.21	-0.932	Nucleus
Rhsim13G0125600	RsWRKY52	484	52564.64	5.28	51.61	-0.892	Nucleus
Rhsim13G0151900	RsWRKY53	583	62994.81	6.58	59.18	-0.668	Nucleus
Rhsim13G0187900	RsWRKY54	271	29959.99	5.45	49.63	-0.820	Nucleus
RhsimUnG0056300	RsWRKY55	513	55840.93	6.62	63.22	-0.668	Nucleus
RhsimUnG0080500	RsWRKY56	547	63550.07	5.59	94.42	-0.290	Nucleus
RhsimUnG0083000	RsWRKY57	268	30899.98	5.33	54.59	-0.759	Nucleus

Table S2. Primers of the *RsWRKY* genes for qRT-PCR

Gene	Primer name	Primer sequences (5'-3')
<i>RsWRKY2</i>	RsWRKY2-qF	GAGGGAACCAAGAGTTGTAGTC
	RsWRKY2-qR	GACGACCTTCTGCCCATATT
<i>RsWRKY3</i>	RsWRKY3-qF	GAGTGTAGCCTGAGAGTTGTAAG
	RsWRKY3-qR	CCTCTCCTGTTTCCACCATTAT
<i>RsWRKY17</i>	RsWRKY17-qF	ATGCACGTACCCGAATTGT
	RsWRKY17-qR	TGGTTGTGGCTGCCTTTAT
<i>RsWRKY47</i>	RsWRKY47-qF	CCGAAGATCCCACCATAGTAATC
	RsWRKY47-qR	AGCAGTGATCAGTCCAACAC
<i>RsWRKY48</i>	RsWRKY48-qF	AACCCTTGTCCAAGAGCTTAC
	RsWRKY48-qR	GTGGTTGTGCTCTCCTTCAT
<i>RsWRKY49</i>	RsWRKY49-qF	TGTGAAGAAGAGAGTGGAGAGA
	RsWRKY49-qR	AGTTGGCTGTGATGGGTATG
<i>RsWRKY50</i>	RsWRKY50-qF	GGCTCTTCTGACCAGATTCTC
	RsWRKY50-qR	CGACCACTACTCCACATTTTC
<i>RsWRKY51</i>	RsWRKY51-qF	CAGCGGTAACCACTCCATAAA
	RsWRKY51-qR	GAAGACTGGTGGTGGAACATAG
<i>RsWRKY55</i>	RsWRKY55-qF	GAATCAGCGAAAGCCGAAATG
	RsWRKY55-qR	GCATATGGAGGGATCGGTAATC
<i>GAPDH</i>	GAPDH-qF	GTTCTGCCAGCGCTTAATGG
	GAPDH-qR	GCCTTCTCAAGCCTCACAGT

