

Table S2. Information about Hsfs in *L. japonicus*, *M. truncatula*, *C. arietinum*, *G. max*, *C. cajan*, *P. vulgaris*, *S. moellendorffii*, *P. patens* and *C. reinhardtii*.

Species	Gene name	Gene identifier	ORF (aa)	MW (Da)	pI	Genomic position
<i>L. japonicus</i>	<i>LjHsf-01</i>	chr1.CM0133.500.r2.m	387	43259.36	5.01	LjChr1:23590373..23591777
	<i>LjHsf-02</i>	chr2.CM0021.3250.r2.m	336	36577.72	5.1	LjChr2:31394445..31395549
	<i>LjHsf-03</i>	chr3.CM0127.360.r2.m	487	54185.41	5.04	LjChr3:46840532..46842190
	<i>LjHsf-04</i>	chr4.CM0432.1390.r2.a	208	24212.45	7.62	LjChr4:6965150..6966843
	<i>LjHsf-05</i>	chr4.CM0297.80.r2.a	392	44390.32	5.82	LjChr4:31165488..31167003
	<i>LjHsf-06</i>	chr4.CM0046.1600.r2.m	401	45706.92	5.34	LjChr4:36402041..36403354
	<i>LjHsf-07</i>	chr4.CM0042.1450.r2.m	367	41932.29	5.14	LjChr4:42520512..42522368
	<i>LjHsf-08</i>	chr5.CM0359.80.r2.m	512	57909.21	5.32	LjChr5:11584169..11586589
	<i>LjHsf-09</i>	chr5.CM0024.490.r2.m	331	38078.98	5.81	LjChr5:17733842..17735506
	<i>LjHsf-10</i>	chr5.CM0200.740.r2.m	354	41006.94	5.42	LjChr5:32187112..32188847
	<i>LjHsf-11</i>	chr6.CM0118.900.r2.d	395	44937.97	5.31	LjChr6:24525770..24527094
<i>M. truncatula</i>	<i>MtHsf-01</i>	Medtr1g071360.1	372	43603.44	5.68	MtChr1:17592134..17594193
	<i>MtHsf-02</i>	Medtr1g107080.1	329	37656.99	4.95	MtChr1:31581884..31583623
	<i>MtHsf-03</i>	Medtr2g017890.1	474	53638.98	5.24	MtChr2:5427722..5430795
	<i>MtHsf-04</i>	Medtr2g100670.1	419	47285.64	4.66	MtChr2:32133687..32137145
	<i>MtHsf-05</i>	Medtr2g100680.1	444	49984.17	6.55	MtChr2:32138306..32140457
	<i>MtHsf-06</i>	Medtr3g101870.1	373	42189.14	7.73	MtChr3:35982638..35985479
	<i>MtHsf-07</i>	Medtr3g104550.1	378	42625.82	4.94	MtChr3:36702717..36704919
	<i>MtHsf-08</i>	Medtr4g077970.1	493	54955.32	5.15	MtChr4:25511197..25514751
	<i>MtHsf-09</i>	Medtr4g078070.1	493	54955.32	5.15	MtChr4:25567635..25571189
	<i>MtHsf-10</i>	Medtr5g010680.1	359	39641.46	5.16	MtChr5:2665834..2669177
	<i>MtHsf-11</i>	Medtr5g017470.1	432	49356.85	8.86	MtChr5:6122009..6130936
	<i>MtHsf-12</i>	Medtr5g029680.1	502	55357.62	4.72	MtChr5:12227106..12231942
	<i>MtHsf-13</i>	Medtr5g089170.1	254	29617.47	6.45	MtChr5:37712245..37713757
	<i>MtHsf-14</i>	Medtr7g091370.1	233	26980.61	8.9	MtChr7:28797928..28800318
	<i>MtHsf-15</i>	Medtr8g083100.1	487	54344.07	5.05	MtChr8:22854701..22858145
	<i>MtHsf-16</i>	Medtr8g087540.1	401	45835.01	5.23	MtChr8:24376345..24378486
	<i>MtHsf-17</i>	Medtr8g105780.1	371	42183.31	5.07	MtChr8:31473372..31476090
	<i>MtHsf-18</i>	AC233659_12.1	210	24509.92	6.15	AC233659:14179947..14181646
<i>MtHsf-19</i>	CU571152_1015.1	256	28580.25	6.37	CU571152.5:66438..76780	
<i>C. arietinum</i>	<i>CaHsf-01</i>	TC01236	494	55088.64	5.06	n.d.
	<i>CaHsf-02</i>	TC02426	497	54812.79	4.79	n.d.
	<i>CaHsf-03</i>	TC04763	332	36929.52	6.85	n.d.
	<i>CaHsf-04</i>	TC04961	267	30044.06	8.39	n.d.
	<i>CaHsf-05</i>	TC05890	482	54488.23	5.24	n.d.
	<i>CaHsf-06</i>	TC07370	351	40615.67	5.19	n.d.
	<i>CaHsf-07</i>	TC09172	240	27627.17	8.52	n.d.
	<i>CaHsf-08</i>	TC10527	337	37124.35	5.43	n.d.
	<i>CaHsf-09</i>	TC11068	401	45693.15	5.28	n.d.
	<i>CaHsf-10</i>	TC12461	258	29873.94	5.32	n.d.
	<i>CaHsf-11</i>	TC15059	367	41782.48	4.83	n.d.
	<i>CaHsf-12</i>	TC34529	473	52722.63	4.87	n.d.
	<i>CaHsf-13</i>	TC34660	310	35746.43	6.64	n.d.
<i>G. max</i>	<i>GmHsf-01</i>	Glyma01g01990.1	461	50843.64	5.31	GmChr1:1541377..1544307
	<i>GmHsf-02</i>	Glyma01g34490.1	209	24228.42	7.01	GmChr1:46835978..46838383
	<i>GmHsf-03</i>	Glyma01g39260.1	282	31193.84	9.01	GmChr1:51227519..51229606
	<i>GmHsf-04</i>	Glyma01g42640.1	338	36922.86	5.14	GmChr1:53862802..53863906
	<i>GmHsf-05</i>	Glyma01g44330.1	464	51846.82	4.93	GmChr1:55025297..55027987
	<i>GmHsf-06</i>	Glyma02g44670.1	291	34062.94	6.59	GmChr2:49172352..49173651
	<i>GmHsf-07</i>	Glyma03g29190.1	231	26714.21	8.8	GmChr3:37141517..37145012
	<i>GmHsf-08</i>	Glyma03g34900.1	423	48268.08	5.58	GmChr3:42204941..42207241
	<i>GmHsf-09</i>	Glyma04g04200.1	363	40646.71	8.41	GmChr4:3095592..3096844
	<i>GmHsf-10</i>	Glyma04g05500.2	372	41922.78	5.08	GmChr4:4167574..4169572
	<i>GmHsf-11</i>	Glyma05g28460.1	479	54028.91	5.43	GmChr5:34265160..34270029
	<i>GmHsf-12</i>	Glyma05g29470.1	382	43805.67	5.01	GmChr5:35079785..35081242
	<i>GmHsf-13</i>	Glyma05g34450.1	358	41018.33	5.23	GmChr5:38783656..38785937
	<i>GmHsf-14</i>	Glyma06g04390.1	363	40469.37	8.44	GmChr6:3057619..3058862
	<i>GmHsf-15</i>	Glyma08g05220.1	364	41717.06	5.14	GmChr8:3703299..3706068
	<i>GmHsf-16</i>	Glyma08g11460.1	477	53896.74	5.66	GmChr8:8333717..8338512
	<i>GmHsf-17</i>	Glyma08g12630.1	402	45953.05	5.07	GmChr8:9242535..9244700
	<i>GmHsf-18</i>	Glyma09g26510.1	324	35584.71	5.73	GmChr9:32991190..32992574
	<i>GmHsf-19</i>	Glyma09g32300.1	320	35975.78	6.28	GmChr9:38833147..38834811
	<i>GmHsf-20</i>	Glyma09g33920.1	500	55532.95	4.91	GmChr9:40400230..40403665
	<i>GmHsf-21</i>	Glyma10g00560.1	324	37698.14	4.63	GmChr10:320843..322652
	<i>GmHsf-22</i>	Glyma10g03530.1	341	39741.93	5.69	GmChr10:2568451..2569878
	<i>GmHsf-23</i>	Glyma10g07620.1	435	48910.19	5.72	GmChr10:6371342..6374987
	<i>GmHsf-24</i>	Glyma10g38240.1	289	32546.75	7.05	GmChr10:46052164..46053421
	<i>GmHsf-25</i>	Glyma10g38930.1	448	52058.88	5.96	GmChr10:46662541..46665008
	<i>GmHsf-26</i>	Glyma11g01190.1	464	52020.26	5.33	GmChr11:684016..687478
	<i>GmHsf-27</i>	Glyma11g02800.1	355	38652.8	4.96	GmChr11:1807814..1810003
	<i>GmHsf-28</i>	Glyma11g06010.1	285	31585.34	9.11	GmChr11:4245812..4247876
	<i>GmHsf-29</i>	Glyma13g16510.1	368	42400.06	6.98	GmChr13:20463262..20465356
	<i>GmHsf-30</i>	Glyma13g21490.1	428	48234.94	5.15	GmChr13:25054276..25057239
	<i>GmHsf-31</i>	Glyma13g24860.1	213	24798.1	7.64	GmChr13:28171233..28173625
	<i>GmHsf-32</i>	Glyma13g29760.1	392	44933.77	4.89	GmChr13:32612241..32614169
	<i>GmHsf-33</i>	Glyma14g04070.1	250	29124.02	8.87	GmChr14:2700334..2701445
	<i>GmHsf-34</i>	Glyma14g09190.1	370	42035.88	7.72	GmChr14:7208889..7210925
	<i>GmHsf-35</i>	Glyma14g11030.1	362	41051.65	4.78	GmChr14:9314476..9317368
	<i>GmHsf-36</i>	Glyma15g09280.1	392	44878.89	5.08	GmChr15:6616217..6618219
<i>GmHsf-37</i>	Glyma16g13400.1	510	56348.77	4.92	GmChr16:14375544..14380501	
<i>GmHsf-38</i>	Glyma16g32070.1	348	37759	6.12	GmChr16:35256650..35258245	
<i>GmHsf-39</i>	Glyma17g06160.1	360	41608.04	8.53	GmChr17:4358386..4360467	
<i>GmHsf-40</i>	Glyma17g20070.1	282	30982.62	6.03	GmChr17:18609225..18613267	
<i>GmHsf-41</i>	Glyma17g34540.1	336	38138.23	5.17	GmChr17:38530630..38533545	
<i>GmHsf-42</i>	Glyma17g35980.1	364	41570.35	8.47	GmChr17:39960997..39962650	
<i>GmHsf-43</i>	Glyma19g31940.1	233	26787.39	9.39	GmChr19:39720668..39723322	
<i>GmHsf-44</i>	Glyma19g34210.1	370	42387.41	5.44	GmChr19:41827148..41829192	
<i>GmHsf-45</i>	Glyma20g28870.1	341	39451.63	5.16	GmChr20:37820334..37821899	
<i>GmHsf-46</i>	Glyma20g29610.1	300	33295.55	8.73	GmChr20:38484532..38485826	
<i>C. cajan</i>	<i>CcHsf-01</i>	C.cajan_19915	205	23661	7.58	CcChr1:7615927..7617782
	<i>CcHsf-02</i>	C.cajan_06276	410	46558.38	5.51	CcChr2:18828876..18832166
	<i>CcHsf-03</i>	C.cajan_07385	251	28297.08	9.24	CcChr2:30447647..30448481
	<i>CcHsf-04</i>	C.cajan_07476	328	38364.1	5.43	CcChr2:31450060..31451723
	<i>CcHsf-05</i>	C.cajan_09277	337	38286.89	5.39	CcChr3:12799267..12800550
	<i>CcHsf-06</i>	C.cajan_09456	231	26740.16	9.08	CcChr3:14507414..14510213
	<i>CcHsf-07</i>	C.cajan_12769	289	32419.51	9.29	CcChr6:18256391..18257755
	<i>CcHsf-08</i>	C.cajan_13182	352	38389.47	5.21	CcChr6:22270411..22271556
	<i>CcHsf-09</i>	C.cajan_15551	362	41652.91	5	CcChr8:2169380..2171458
	<i>CcHsf-10</i>	C.cajan_01041	404	45615.51	5.86	CcChr11:11017250..11021000
	<i>CcHsf-11</i>	C.cajan_03188	443	49847.83	5.02	CcChr11:35100306..35101777
	<i>CcHsf-12</i>	C.cajan_03745	360	41267.43	5.4	CcChr11:41298162..41299801
	<i>CcHsf-13</i>	C.cajan_25281	514	56492.73	4.81	CcScaffold000155:676508..683343
	<i>CcHsf-14</i>	C.cajan_32266	353	40801.49	5.41	CcScaffold000182:110140..111471
	<i>CcHsf-15</i>	C.cajan_33410	304	34943.21	8.71	CcScaffold000208:172995..174383
	<i>CcHsf-16</i>	C.cajan_30804	342	39883.92	5.8	CcScaffold000221:157822..159747
	<i>CcHsf-17</i>	C.cajan_29530	347	40099.85	5.42	CcScaffold128446:59890..61178
	<i>CcHsf-18</i>	C.cajan_30373	342	39615.96	5.72	CcScaffold128680:155900..157182
	<i>CcHsf-19</i>	C.cajan_24088	449	50349.2	5.19	CcScaffold130941:699987..702801
	<i>CcHsf-20</i>	C.cajan_37173	297	32824.83	6.96	CcScaffold132487:91136..94149
	<i>CcHsf-21</i>	C.cajan_36375	493	54295.56	4.79	CcScaffold132641:25714..29499
	<i>CcHsf-22</i>	C.cajan_27606	303	34299.81	5.82	CcScaffold132776:531150..532716
<i>P. vulgaris</i>	<i>PvHsf-01</i>	Phvulv091021617m	334	38667.39	4.82	PvScaffold00001:251683..253586
	<i>PvHsf-02</i>	Phvulv091021516m	241	28258.45	9.2	PvScaffold00001:2697465..2700690
	<i>PvHsf-03</i>	Phvulv091020489m	360	41209.45	4.9	PvScaffold00002:4048025..4051185
	<i>PvHsf-04</i>	Phvulv091010948m	373	42462.58	4.91	PvScaffold00004:136234..138819
	<i>PvHsf-05</i>	Phvulv091010839m	339	38843.55	7.31	PvScaffold00004:1726980..1728693
	<i>PvHsf-06</i>	Phvulv091011519m	474	52777.74	4.9	PvScaffold00005:2620246..2624309
	<i>PvHsf-07</i>	Phvulv091015583m	441	49829.8	5.61	PvScaffold00008:147554..149599
	<i>PvHsf-08</i>	Phvulv091022066m	386	43876.73	5.01	PvScaffold00013:1987221..1989485
	<i>PvHsf-09</i>	Phvulv091016481m	278	30720.38	5.92	PvScaffold00017:1210184..1213352
	<i>PvHsf-10</i>	Phvulv091016314m	490	54230.43	5.02	PvScaffold00022:22643..26535
	<i>PvHsf-11</i>	Phvulv091023300m	304	34047.3	7.02	PvScaffold00029:513050..514633
	<i>PvHsf-12</i>	Phvulv091023279m	353	40995.34	5.29	PvScaffold00029:1336185..1338209