Supplementary data

Figure. S1. Results of transcriptome analysis of rice leaf between FR and HI. (A) The bar chart of GO enrichment DEGs analysis for DEGs. (B)The scatter plot of KEGG enrichment analysis for DEG. The* in the figure represents Q-value<0.05.

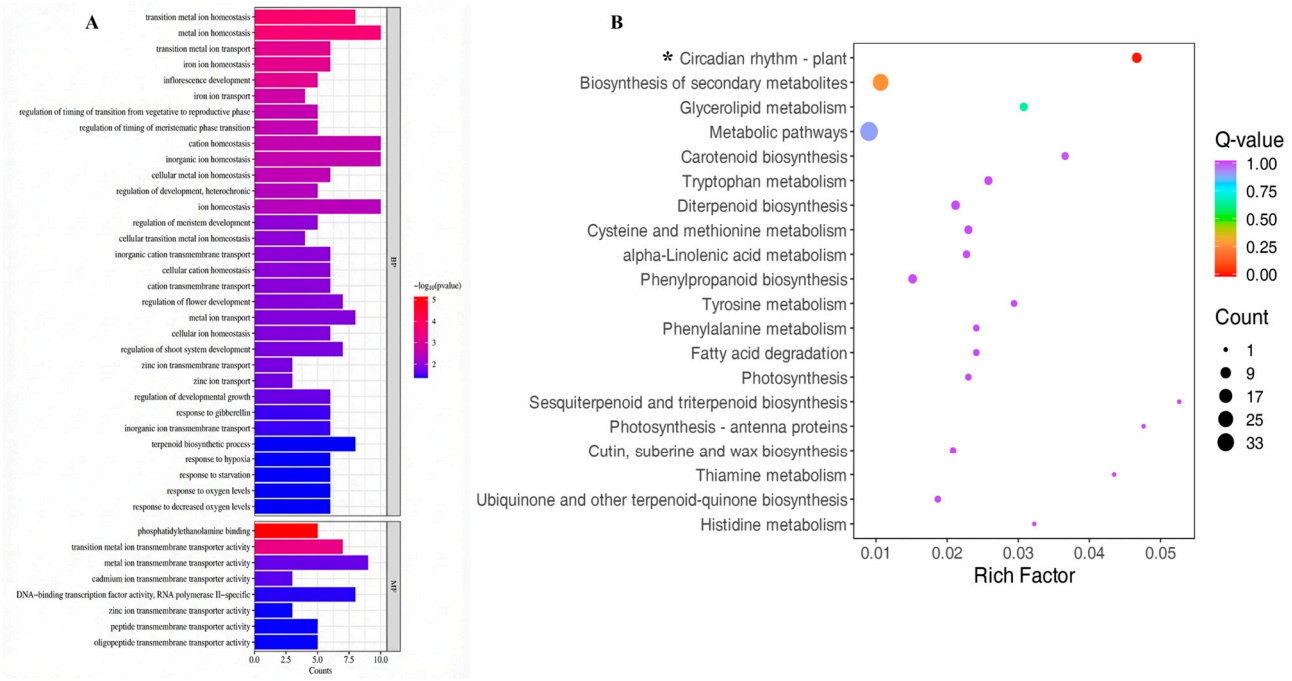


Figure. S2. Results of transcriptome analysis of rice leaf between HI and CK. (A) The bar chart of GO enrichment DEGs analysis for DEGs. (B)The scatter plot of KEGG enrichment analysis for DEG.

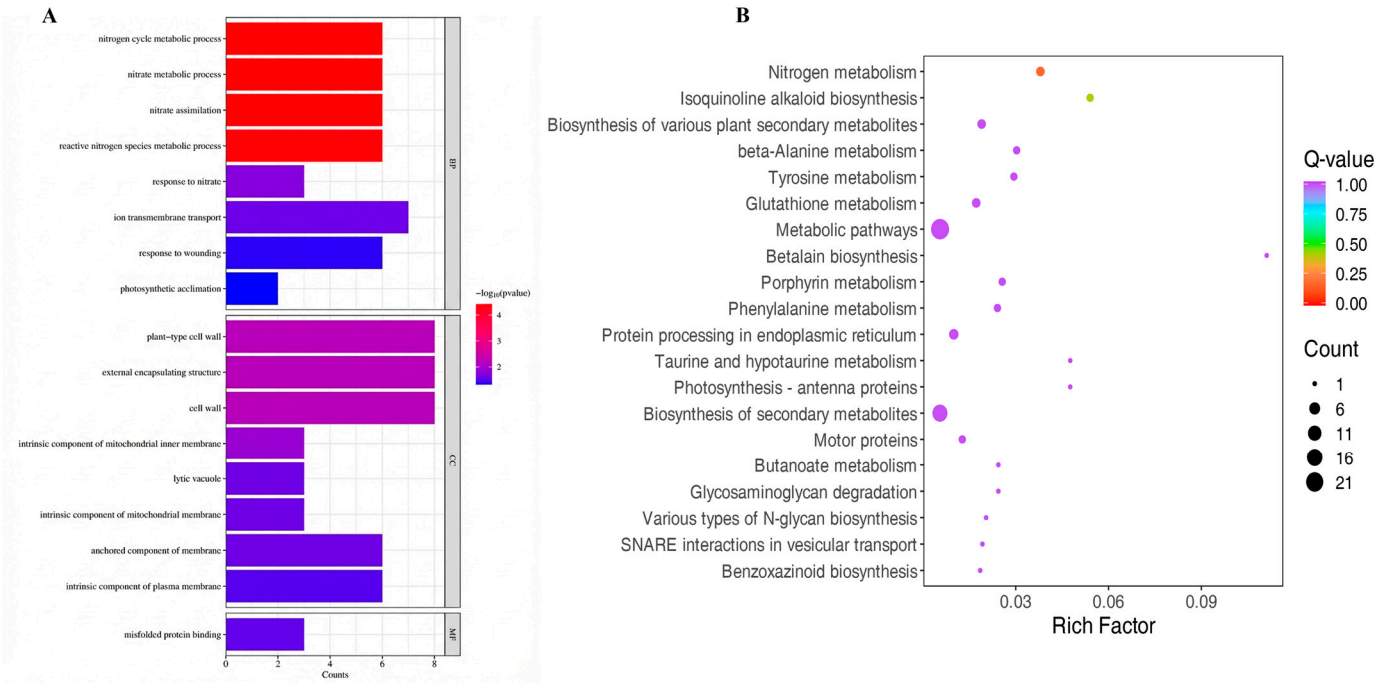


Figure. S3. Relative expression analysis of 20 genes under different light regimes. Data represent mean ± standard error, fragments per kilobase of transcript per million fragments mapped (FPKM), n = 3; relative expression, n = 3.

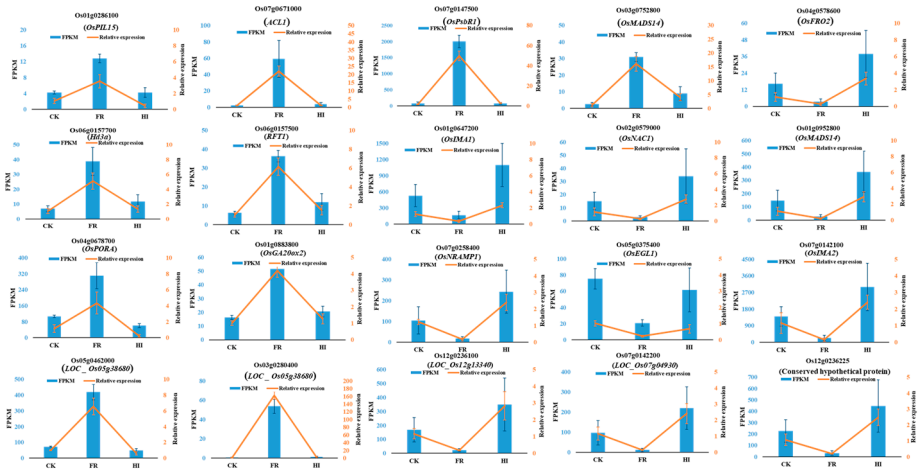


Table S1. Summary of the sequence data analysis at different light regimes.

Sample	Raw Reads	Clean Reads	Clean Base(G)	Error Rate(%)	Q20 (%)	Q30 (%)	GC Content (%)
C1	43287176	42510398	6.38	0.02	95.30	87.71	58.03
C2	56381414	55395208	8.31	0.02	95.97	89.49	58.67
C3	52083938	51191106	7.68	0.02	96.04	89.65	58.11
F1	48585682	47706116	7.16	0.02	96.14	89.81	57.83
F2	56004470	54908204	8.24	0.02	95.90	89.33	58.07
F3	51489380	50509412	7.58	0.02	95.76	88.93	57.90
H1	53667798	52629670	7.89	0.02	95.81	89.1	58.35
H2	49573198	48667546	7.30	0.02	95.78	88.98	57.91
H3	54194660	53168594	7.98	0.02	95.65	88.72	58.93

Table S2. Lighting settings for three treatments after rice transplantation.

Treatments	Red&blue &green light (μmol m^{-2} s^{-1})	Far-red light (μmol m^{-2} s^{-1})	Total photon flux density (μmol m^{-2} s^{-1})	Photoperiod (h)
CK	300	0	300	08:00-19:00
FR	300	50	350	08:00-19:00
HI	350	0	350	08:00-19:00

Table S3. The list of DEGs between FR and CK RNA-seq.

ID	log2FoldChange	p-value	adjusted p-value	regulated
Os02g0460200	3.8237807563	0.0000000000	0.0000000000	up
Os03g0280400	6.1634631835	0.0000000000	0.0000000000	up
Os05g0462000	2.4204088709	0.0000000000	0.0000000000	up
Os12g0189300	-2.3751962122	0.0000000000	0.0000000000	down
Os03g0124500	4.1811719261	0.0000000000	0.0000000000	up
Os11g0267000	-1.7701004810	0.0000000000	0.0000000000	down
Os06g0157500	2.4085084545	0.0000000000	0.0000000000	up
Os01g0720500	-3.7315190338	0.0000000000	0.0000000000	down
Os02g0731600	-1.1688425653	0.0000000000	0.0000000000	down
Os01g0883800	1.5573251620	0.0000000000	0.0000000000	up
Os05g0408900	-1.2754098199	0.0000000000	0.0000000000	down
Os11g0559600	-5.0917765904	0.0000000000	0.0000000000	down
Os04g0675400	1.8783510454	0.0000000000	0.0000000000	up
Os02g0716500	-1.0880390223	0.0000000000	0.0000000000	down
Os08g0126700	-1.0584671820	0.0000000000	0.0000000000	down
Os05g0375400	-1.9651977887	0.0000000000	0.0000000000	down
Os12g0493900	1.2323230419	0.0000000000	0.0000000000	up
Os10g0528300	-1.5211089528	0.0000000000	0.0000000000	down
Os01g0702000	1.1782474203	0.0000000000	0.0000000000	up
novel.674	-1.9788558262	0.0000000000	0.0000000000	down

Os03g0129400	1.7371829076	0.0000000000	0.0000000000	up
Os01g0314800	-2.0862046050	0.0000000000	0.0000000000	down
Os01g0238500	-1.0033906457	0.0000000000	0.0000000000	down
Os01g0286100	1.5036987428	0.0000000000	0.0000000000	up
Os06g0184866	-1.2132091036	0.0000000000	0.0000000000	down
Os09g0358300	1.9087883454	0.0000000000	0.0000000000	up
Os07g0413800	1.0284641361	0.0000000000	0.0000000000	up
Os09g0554300	-2.0926450922	0.0000000000	0.0000000000	down
novel.1037	2.4662169625	0.0000000000	0.0000000000	up
Os06g0474800	1.2324927358	0.0000000000	0.0000000000	up
Os04g0678700	1.4305928562	0.0000000000	0.0000000000	up
Os08g0529000	3.4233860089	0.0000000000	0.0000000000	up
Os07g0518500	1.0313585036	0.0000000000	0.0000000000	up
Os07g0671000	4.6376056713	0.0000000000	0.0000000000	up
Os10g0508700	-1.6376191839	0.0000000000	0.0000000000	down
Os06g0607100	-1.8620594300	0.0000000000	0.0000000000	down
Os02g0770800	-2.9098650831	0.0000000000	0.0000000000	down
Os08g0455900	2.8653766865	0.0000000000	0.0000000000	up
Os01g0775100	-1.1238858771	0.0000000000	0.0000000000	down
Os05g0390800	1.3084412842	0.0000000000	0.0000000000	up
Os11g0552000	-1.5642667770	0.0000000000	0.0000000000	down
Os05g0412800	-1.9325118735	0.0000000000	0.0000000000	down
Os11g0210600	2.8670946304	0.0000000000	0.0000000000	up
novel.1186	2.4363695516	0.0000000000	0.0000000000	up
Os08g0468100	-1.4380085864	0.0000000000	0.0000000000	down
Os01g0631200	-1.3687996390	0.0000000000	0.0000000000	down

Os03g0290300	-1.0453457675	0.0000000000	0.0000000000	down
Os01g0192900	-3.8341055615	0.0000000000	0.0000000000	down
Os07g0418500	-1.6421217857	0.0000000000	0.0000000000	down
Os10g0552700	-2.8975143555	0.0000000000	0.0000000000	down
Os04g0683700	-1.2842257623	0.0000000000	0.0000000000	down
Os01g0203000	1.3870983807	0.0000000000	0.0000000000	up
Os05g0195200	1.5070536258	0.0000000000	0.0000000000	up
Os03g0273800	-1.1924155098	0.0000000000	0.0000000000	down
novel.653	-2.2292887589	0.0000000000	0.0000000000	down
Os03g0100020	-2.4456202467	0.0000000000	0.0000000000	down
Os06g0566201	3.7171349572	0.0000000000	0.0000000000	up
Os03g0752800	3.5115653145	0.0000000000	0.0000000000	up
Os02g0599200	-1.8002961316	0.0000000000	0.0000000000	down
Os09g0511600	-1.0018677193	0.0000000000	0.0000000000	down
Os03g0272900	1.6039994119	0.0000000000	0.0000000000	up
Os12g0139400	-1.4230723034	0.0000000000	0.0000000000	down
Os09g0426500	-2.5978206144	0.0000000000	0.0000000000	down
Os03g0726500	-1.0473716188	0.0000000000	0.0000000000	down
Os05g0227600	-1.5684879627	0.0000000000	0.0000000000	down
Os01g0854000	1.1803218929	0.0000000000	0.0000000000	up
Os04g0517500	2.4370045398	0.0000000000	0.0000000000	up
Os09g0470500	1.0411454855	0.0000000000	0.0000000001	up
Os08g0470700	1.5081741388	0.0000000000	0.0000000001	up
Os06g0531600	-1.3743063967	0.0000000000	0.0000000002	down
Os06g0185100	-1.6421931772	0.0000000000	0.0000000002	down
Os07g0684100	1.7105729405	0.0000000000	0.0000000005	up

Os01g0700100	-1.5953765410	0.0000000000	0.0000000008	down
Os09g0358700	1.5007592498	0.0000000000	0.0000000012	up
Os02g0674233	1.7557477843	0.0000000000	0.0000000013	up
Os05g0104000	1.5929708090	0.0000000000	0.0000000013	up
Os04g0635500	1.8229042144	0.0000000000	0.0000000017	up
Os08g0231400	-1.5622046542	0.0000000000	0.0000000019	down
Os04g0460300	-2.1600301016	0.0000000000	0.0000000024	down
novel.1036	1.2124927279	0.0000000000	0.0000000030	up
Os04g0606000	-1.4072827573	0.0000000000	0.0000000031	down
Os07g0175600	-1.7027944854	0.0000000000	0.0000000032	down
Os11g0614500	-1.6131695055	0.0000000000	0.0000000032	down
Os01g0746400	1.8122857714	0.0000000000	0.0000000032	up
Os01g0218500	2.6217266548	0.0000000000	0.0000000035	up
Os05g0160300	-1.2611110209	0.0000000000	0.0000000045	down
Os11g0437600	6.9899936157	0.0000000000	0.0000000048	up
Os05g0217800	-1.9984647593	0.0000000000	0.0000000050	down
novel.318	-1.3818523477	0.0000000000	0.0000000052	down
Os01g0740500	1.3181501404	0.0000000001	0.0000000101	up
Os08g0434100	-1.9092866379	0.0000000001	0.0000000101	down
novel.212	2.4840121864	0.0000000001	0.0000000126	up
Os01g0813800	-1.6046689220	0.0000000001	0.0000000140	down
Os04g0635650	-2.0588925678	0.0000000001	0.0000000157	down
Os01g0667900	-1.6136861214	0.0000000001	0.0000000161	down
Os01g0701900	1.1304948329	0.0000000002	0.0000000220	up
Os01g0902100	4.3949602962	0.0000000002	0.0000000228	up
Os02g0259900	2.0650329659	0.0000000002	0.0000000255	up

Os10g0578950	-1.0684718425	0.0000000003	0.0000000376	down
Os03g0188500	-1.7159106854	0.0000000003	0.0000000427	down
Os10g0502400	-1.0036211428	0.0000000004	0.0000000446	down
Os05g0413200	-2.5618172831	0.0000000004	0.0000000507	down
Os05g0506000	1.0405590706	0.0000000006	0.0000000669	up
Os02g0306401	3.2845553896	0.0000000006	0.0000000709	up
Os01g0971800	1.0391600342	0.0000000007	0.0000000801	up
Os05g0500600	-2.1543372395	0.0000000010	0.0000001062	down
Os03g0734100	-3.2448927265	0.0000000011	0.0000001190	down
Os08g0207500	2.3657124790	0.0000000011	0.0000001225	up
Os02g0716600	-2.1114677009	0.0000000015	0.0000001605	down
Os03g0293700	-4.2483191413	0.0000000018	0.0000001873	down
Os08g0546800	1.6325693753	0.0000000024	0.0000002415	up
Os09g0358500	1.6699783543	0.0000000026	0.0000002663	up
Os07g0142700	-2.2422829291	0.0000000031	0.0000003078	down
novel.535	1.0013701133	0.0000000032	0.0000003177	up
Os04g0322100	-2.2402327482	0.0000000035	0.0000003416	down
Os07g0622200	-1.4228490045	0.0000000037	0.0000003555	down
Os01g0959100	-2.7413555201	0.0000000042	0.0000003993	down
Os04g0556400	-1.7370247308	0.0000000045	0.0000004264	down
Os08g0508500	1.0662395932	0.0000000049	0.0000004595	up
Os07g0147500	4.6117183621	0.0000000057	0.0000005257	up
Os07g0442900	-2.2381894839	0.0000000060	0.0000005480	down
Os06g0157700	2.3581894055	0.0000000067	0.0000005962	up
Os04g0523812	1.7633695267	0.0000000068	0.0000006059	up
Os06g0610800	-2.4755650548	0.0000000071	0.0000006307	down

Os08g0539700	1.2645464029	0.0000000074	0.0000006538	up
Os02g0580900	-1.3967068068	0.0000000080	0.0000007015	down
Os01g0132000	-1.7890581316	0.0000000089	0.0000007746	down
Os08g0200750	4.1000676168	0.0000000094	0.0000008098	up
Os07g0693800	-1.0946473803	0.0000000106	0.0000009056	down
Os07g0631200	1.2602698332	0.0000000177	0.0000014668	up
Os08g0556900	-1.6330828904	0.0000000208	0.0000016855	down
Os12g0626400	-1.0906491890	0.0000000216	0.0000017407	down
Os01g0770700	1.0446208848	0.0000000362	0.0000028171	up
Os04g0171600	2.3693902380	0.0000000365	0.0000028225	up
Os11g0581900	-1.1155702565	0.0000000451	0.0000034262	down
Os05g0202800	1.6746999725	0.0000000605	0.0000044717	up
Os07g0691300	-1.5607999132	0.0000000606	0.0000044717	down
Os11g0284300	1.4721691670	0.0000000705	0.0000051444	up
Os01g0760000	-1.9806245930	0.0000000824	0.0000059441	down
Os05g0195101	1.3035386611	0.0000000936	0.0000066774	up
Os01g0757200	-1.2008929525	0.0000001121	0.0000078556	down
Os07g0112100	-1.2222611263	0.0000001158	0.0000080899	down
Os10g0479500	-1.5810642448	0.0000001227	0.0000085133	down
Os01g0748800	2.7380379916	0.0000001236	0.0000085436	up
Os11g0264500	-1.7160563873	0.0000001362	0.0000092807	down
Os08g0237000	-1.5055160921	0.0000001375	0.0000093376	down
Os10g0205700	-2.3527057187	0.0000001578	0.0000106071	down
novel.1168	1.3857176123	0.0000001586	0.0000106259	up
Os11g0690466	1.9249620972	0.0000001717	0.0000114288	up
Os03g0225900	-1.9812356887	0.0000001757	0.0000116492	down

Os06g0558300	-2.1501155617	0.0000002146	0.0000137230	down
Os07g0559100	3.7247247136	0.0000002428	0.0000152787	up
Os03g0140200	1.5236998734	0.0000002558	0.0000160479	up
Os03g0215400	1.3707419938	0.0000002705	0.0000168628	up
Os08g0475000	-1.3090091816	0.0000004329	0.0000257969	down
Os05g0253200	1.8982231507	0.0000004335	0.0000257969	up
Os05g0439000	-1.4260091855	0.0000004450	0.0000264036	down
Os11g0644500	-1.3198736970	0.0000004487	0.0000264990	down
Os06g0696600	-1.4240970829	0.0000004493	0.0000264990	down
Os01g0959200	-1.6915766456	0.0000005165	0.0000302782	down
Os03g0183200	-1.2423988922	0.0000006504	0.0000373510	down
Os07g0147550	3.2705797662	0.0000006630	0.0000378534	up
Os01g0141000	-2.8547398667	0.0000007006	0.0000398856	down
Os01g0793300	-2.5366941581	0.0000007069	0.0000400084	down
Os11g0284032	1.3349762877	0.0000007462	0.0000421147	up
Os03g0734300	-2.0784793543	0.0000007716	0.0000434240	down
Os05g0542150	1.6149491478	0.0000008211	0.0000459465	up
Os03g0725200	-1.0307240679	0.0000009105	0.0000500972	down
Os05g0398800	-1.7711320342	0.0000009771	0.0000531645	down
Os11g0125900	-1.5872360600	0.0000010381	0.0000560183	down
novel.682	5.6434354726	0.0000010784	0.0000577193	up
Os02g0649900	-1.8892548846	0.0000011063	0.0000587360	down
Os07g0523700	-1.1236081971	0.0000011209	0.0000593522	down
Os03g0322900	-2.6126658096	0.0000011848	0.0000620683	down
Os10g0328700	6.3170574815	0.0000012006	0.0000627296	up
Os10g0160600	-1.5927059073	0.0000014029	0.0000715869	down

Os09g0472900	1.8824734521	0.0000016395	0.0000819991	up
Os01g0337500	-2.2227983342	0.0000016402	0.0000819991	down
Os07g0108900	6.2827831661	0.0000016665	0.0000828929	up
Os04g0548700	1.5017916988	0.0000016986	0.0000842746	up
Os12g0117700	1.9411359667	0.0000018941	0.0000932708	up
Os02g0741700	-1.1906004674	0.0000020425	0.0000995818	down
Os04g0316200	-3.0745659020	0.0000021499	0.0001037908	down
Os05g0198400	1.9983815369	0.0000023750	0.0001132674	up
Os06g0573600	-1.1759759277	0.0000024175	0.0001147758	down
Os01g0566800	-1.7825665755	0.0000024182	0.0001147758	down
Os11g0286800	1.2204949871	0.0000026211	0.0001232175	up
Os01g0194600	-1.0247325366	0.0000028436	0.0001317886	down
Os04g0561500	3.3097483404	0.0000031258	0.0001425207	up
Os05g0139100	1.8926428709	0.0000031480	0.0001432005	up
Os08g0140300	-1.8610273107	0.0000032591	0.0001472351	down
Os09g0562750	-3.7108392116	0.0000033830	0.0001521335	down
Os06g0316300	-1.3395794729	0.0000038730	0.0001733770	down
Os10g0527800	-1.0497675175	0.0000040054	0.0001788967	down
Os03g0386800	-2.3127181226	0.0000042395	0.0001876529	down
Os04g0280500	7.1926158723	0.0000043609	0.0001925919	up
Os01g0733200	1.0196597191	0.0000045007	0.0001979656	up
Os01g0601000	2.0614826084	0.0000045028	0.0001979656	up
Os03g0347900	-1.0235914400	0.0000045127	0.0001979656	down
Os01g0580500	-3.4031328038	0.0000049715	0.0002142728	down
Os08g0334900	-2.6096277044	0.0000050998	0.0002193239	down
Os10g0483500	-1.0195913355	0.0000051952	0.0002229429	down

Os09g0127300	-1.5323992359	0.0000058722	0.0002490626	down
Os03g0661600	-1.7934626369	0.0000063943	0.0002674063	down
Os09g0488600	3.0900185137	0.0000069740	0.0002898196	up
Os10g0525800	-5.3084190872	0.0000071957	0.0002977602	down
Os02g0579000	-2.3967272561	0.0000079915	0.0003272511	down
Os01g0963000	-2.3327427626	0.0000084272	0.0003436665	down
Os08g0476300	-1.0558566036	0.0000085565	0.0003475005	down
Os03g0192700	-1.0240987073	0.0000086048	0.0003487404	down
Os09g0522200	-3.1576933944	0.0000086378	0.0003493597	down
Os01g0155800	1.7354957405	0.0000089330	0.0003598227	up
Os08g0112300	-2.6049234854	0.0000101284	0.0003982032	down
Os02g0739400	-1.6693452693	0.0000104981	0.0004119160	down
Os04g0561550	2.9294599691	0.0000108323	0.0004216660	up
Os12g0448900	-2.5779592022	0.0000116256	0.0004507678	down
Os09g0518000	-1.5899471142	0.0000119773	0.0004619550	down
Os05g0519300	-2.3049868373	0.0000121696	0.0004654455	down
Os12g0199000	1.8723365756	0.0000122204	0.0004664815	up
Os09g0268100	1.0161862927	0.0000128830	0.0004879916	up
Os11g0546500	1.9220497634	0.0000139170	0.0005201574	up
novel.34	3.9665051381	0.0000149925	0.0005561356	up
Os01g0731201	-1.3036909797	0.0000152064	0.0005630091	down
Os07g0232800	1.6818364125	0.0000155539	0.0005726441	up
Os02g0134400	-1.1659704545	0.0000159386	0.0005857156	down
Os06g0133500	-2.3398786969	0.0000165293	0.0006040391	down
novel.923	-4.6546571945	0.0000167284	0.0006101843	down
Os01g0731100	-2.5198896330	0.0000177367	0.0006422066	down

Os12g0282400	-3.3971863380	0.0000181741	0.0006544343	down
Os10g0139700	-1.1936394766	0.0000183674	0.0006601891	down
Os09g0487200	-2.6356119266	0.0000184643	0.0006624613	down
Os07g0622700	-1.6239364472	0.0000191914	0.0006830207	down
Os05g0220500	-1.5651417405	0.0000201151	0.0007113237	down
Os07g0679300	1.1023069023	0.0000205767	0.0007250437	up
Os05g0567600	-1.9815804256	0.0000224654	0.0007818029	down
Os03g0857600	-1.6040204189	0.0000225339	0.0007828029	down
Os01g0286500	2.5480202706	0.0000226957	0.0007870378	up
Os12g0236100	-3.0317411248	0.0000231063	0.0007970673	down
Os01g0615050	-2.6950591592	0.0000233060	0.0008011501	down
Os09g0344500	1.0556944438	0.0000260719	0.0008851785	up
Os03g0236200	-1.5996331531	0.0000261294	0.0008851785	down
Os02g0277700	1.2843217398	0.0000262297	0.0008861853	up
Os01g0627967	-1.4877944391	0.0000262920	0.0008867690	down
Os11g0442380	-1.2561887974	0.0000273953	0.0009192593	down
Os07g0245100	-1.0442579766	0.0000278921	0.0009343392	down
Os01g0871600	-3.1509018053	0.0000284175	0.0009487127	down
Os02g0718600	-1.3900821053	0.0000318905	0.0010469107	down
Os01g0973100	1.1435789914	0.0000330275	0.0010788437	up
Os12g0282000	-4.8164486533	0.0000333803	0.0010885615	down
Os10g0195250	-2.3755060681	0.0000353692	0.0011515172	down
Os08g0205800	-1.1348283307	0.0000357652	0.0011605708	down
Os01g0973150	1.2019242212	0.0000366834	0.0011864581	up
Os01g0862800	-2.0124106192	0.0000381371	0.0012194591	down
Os02g0778900	1.9260274804	0.0000388901	0.0012375083	up

Os10g0492400	-1.5692006811	0.0000394303	0.0012526739	down
Os07g0663900	-2.2755184228	0.0000407615	0.0012887302	down
Os03g0400700	-1.1393620548	0.0000488749	0.0015208347	down
Os05g0496100	-1.1824545996	0.0000507671	0.0015747387	down
Os01g0524400	-1.2499665516	0.0000513351	0.0015898540	down
Os06g0147000	-1.4167517363	0.0000536810	0.0016495377	down
Os04g0464100	-1.7304961625	0.0000562191	0.0017194850	down
Os01g0615100	-2.8149198813	0.0000573609	0.0017489746	down
Os12g0236200	-2.3386910809	0.0000615595	0.0018622773	down
Os08g0203400	-3.7518931226	0.0000658362	0.0019798111	down
Os04g0612500	-1.9010889543	0.0000668095	0.0020060151	down
Os06g0470350	1.0778828872	0.0000671726	0.0020077358	up
Os06g0294950	-7.1764622320	0.0000677260	0.0020181541	down
Os11g0446700	-2.3675156830	0.0000692381	0.0020597997	down
Os12g0520200	-1.3683684171	0.0000711478	0.0020979025	down
Os05g0191500	-1.1287707159	0.0000729317	0.0021408871	down
Os03g0751100	-1.2620692386	0.0000782607	0.0022769590	down
Os11g0154900	-1.5233039594	0.0000856921	0.0024640535	down
Os04g0121800	-1.3703617002	0.0000939479	0.0026638579	down
Os05g0472700	7.6038821147	0.0000939931	0.0026638579	up
Os02g0526700	-1.1047323383	0.0000966424	0.0027310851	down
Os01g0498300	-2.2053412840	0.0001242441	0.0034036652	down
Os01g0135700	-1.4069169558	0.0001253318	0.0034286945	down
Os05g0472400	7.7502521012	0.0001260847	0.0034371524	up
Os01g0954000	-1.1517797837	0.0001292159	0.0035057364	down
novel.146	1.3136448338	0.0001299348	0.0035155579	up

Os06g0538400	-1.2168109288	0.0001332802	0.0035961925	down
Os05g0582000	-1.1891068268	0.0001472159	0.0039238317	down
Os03g0103300	-4.5479345288	0.0001490283	0.0039614184	down
Os11g0700900	-1.6625194842	0.0001555539	0.0041016659	down
novel.814	5.6006204382	0.0001581574	0.0041481030	up
novel.1282	1.0301963870	0.0001601535	0.0041892995	up
Os06g0298100	-1.8276654596	0.0001798645	0.0046554420	down
Os03g0153900	-2.4473119583	0.0001826246	0.0047144914	down
Os12g0491800	-2.0717236975	0.0001899651	0.0048966282	down
Os11g0180900	-1.0252849500	0.0001964116	0.0050373961	down
Os03g0103200	-3.6412924332	0.0001992398	0.0051032853	down
Os08g0179000	1.4104699180	0.0002116167	0.0053852889	up
Os11g0143300	-1.4943773873	0.0002142429	0.0054380693	down
Os06g0561000	-1.8266443217	0.0002251308	0.0056778501	down
novel.1148	-1.2932892673	0.0002289623	0.0057450572	down
Os12g0236225	-2.9101319495	0.0002393149	0.0059367567	down
Os03g0838800	-2.8343210076	0.0002445414	0.0060435784	down
Os02g0776400	1.0354817392	0.0002774589	0.0067387263	up
Os03g0322700	1.2477307301	0.0002798254	0.0067794849	up
Os02g0731500	-1.0502437554	0.0002849924	0.0068877247	down
Os12g0240900	-2.4001304714	0.0002879121	0.0069412536	down
Os07g0523965	-1.0175623588	0.0002930097	0.0070555171	down
Os05g0255800	1.0191790691	0.0003294287	0.0078272109	up
Os01g0952900	-2.4618506350	0.0003334782	0.0079089272	down
Os01g0901600	-1.6145435020	0.0003680751	0.0085394297	down
Os02g0827400	-2.0635307856	0.0004085976	0.0093801243	down

Os01g0172600	-1.0183482502	0.0004384208	0.0099602929	down
Os01g0869450	-1.3644649301	0.0004675011	0.0105238495	down
Os09g0494500	1.2843098295	0.0004779610	0.0107103506	up
Os05g0186300	-1.2703413849	0.0004895759	0.0109115569	down
Os04g0282400	1.2144747287	0.0005311270	0.0116405495	up
Os10g0578800	-1.3493951436	0.0005469943	0.0119051351	down
Os01g0952800	-2.5377889646	0.0006033250	0.0129734636	down
Os08g0403300	-1.6594616220	0.0006195530	0.0132600905	down
Os11g0182900	1.5626829638	0.0006409113	0.0135742253	up
Os01g0136100	2.9152822253	0.0006727699	0.0141355211	up
Os12g0147800	-1.1428610067	0.0006777934	0.0142026550	down
Os01g0594800	-1.4647427316	0.0006989394	0.0145682639	down
Os11g0262600	-2.1642384466	0.0007158885	0.0148743208	down
Os06g0254600	-1.6881557022	0.0007461587	0.0154057522	down
Os02g0191000	1.3842256740	0.0007507141	0.0154673805	up
Os08g0492500	1.3219660546	0.0007999251	0.0162434284	up
Os07g0437000	2.3992089656	0.0008288415	0.0166452523	up
Os08g0189300	-4.4417122642	0.0008290091	0.0166452523	down
Os09g0268000	1.5375804006	0.0008499344	0.0169616591	up
Os12g0601400	-1.7409063177	0.0008708932	0.0173272555	down
Os03g0258200	-1.8029172948	0.0008739430	0.0173628602	down
Os01g0124100	-2.4203701574	0.0008999375	0.0177898828	down
Os04g0352400	1.9286543769	0.0009004677	0.0177898828	up
Os02g0671800	-1.1818042487	0.0009056965	0.0178573610	down
Os01g0106400	2.4665132081	0.0009560775	0.0187009519	up
Os07g0100600	-1.3328864337	0.0009727381	0.0189515549	down

novel.63	-1.9408769625	0.0010029936	0.0194640045	down
Os01g0511000	-1.1268622527	0.0010208990	0.0196950510	down
Os05g0312600	-1.5360379961	0.0010512764	0.0201429885	down
Os07g0679400	6.1906726121	0.0010631950	0.0203515576	up
Os07g0142100	-2.6649241275	0.0011058890	0.0210054923	down
Os03g0119300	-1.6353284580	0.0011284125	0.0213714822	down
Os09g0451000	-1.5099514441	0.0011314488	0.0214084023	down
Os06g0224200	1.1083763406	0.0011489994	0.0216780082	up
Os12g0115700	-1.5171583755	0.0011541844	0.0217341973	down
novel.250	-1.2616422660	0.0011557148	0.0217422291	down
Os02g0661100	-1.1775580466	0.0011836242	0.0219819371	down
Os02g0771700	-1.7590132882	0.0011989029	0.0221735118	down
Os08g0364900	-1.5531940489	0.0012087837	0.0222934581	down
Os07g0133100	2.0815434906	0.0012142783	0.0223738442	up
Os07g0258400	-2.7336639295	0.0012157110	0.0223793078	down
Os10g0392400	-1.7149494111	0.0012289934	0.0225498492	down
Os09g0130300	-1.5056251815	0.0012521157	0.0229209325	down
Os03g0194600	-1.1070406688	0.0013211913	0.0240512983	down
Os01g0864500	-1.8025882432	0.0013314120	0.0241926406	down
Os03g0192600	-1.6249057381	0.0013528165	0.0244850950	down
Os08g0412800	-1.5647921013	0.0013909575	0.0250798178	down
Os09g0445500	-1.6331271188	0.0013916962	0.0250798178	down
Os08g0108100	-1.1515974900	0.0014706267	0.0262446610	down
Os12g0123500	-1.0940707865	0.0015116387	0.0267999519	down
Os07g0218200	-2.0922198736	0.0015212221	0.0269107118	down
Os08g0508000	-1.9786355388	0.0015509354	0.0273489475	down

Os01g0495701	-1.8434742394	0.0015529046	0.0273591787	down
Os05g0527000	-1.4805164530	0.0015854907	0.0277594759	down
Os02g0540700	-1.3353483542	0.0015991436	0.0278961074	down
Os07g0138200	-1.5160813847	0.0016136032	0.0279781185	down
Os03g0270000	-3.1393781110	0.0017030443	0.0293480875	down
Os03g0128000	-1.7451993367	0.0017110429	0.0294140910	down
Os03g0181100	-2.1807109021	0.0017498841	0.0298982929	down
Os07g0613600	1.2728322639	0.0018039512	0.0306314020	up
Os08g0544400	2.9003373951	0.0018397678	0.0311322219	up
Os05g0551100	-1.8272299850	0.0018544412	0.0313266965	down
Os03g0830400	1.1612541255	0.0018748183	0.0315539714	up
Os08g0174000	-1.8800015611	0.0019171904	0.0320840267	down
Os08g0474800	1.1440251448	0.0019436948	0.0323626014	up
Os01g0647200	-1.7515149564	0.0020520653	0.0337673607	down
Os04g0114801	1.6427382592	0.0020584681	0.0338444455	up
Os03g0231600	-1.5817234167	0.0020679424	0.0339435508	down
Os03g0769700	-1.2191511250	0.0021522641	0.0349202196	down
Os10g0109300	-2.8116493375	0.0021772258	0.0351803257	down
Os01g0697100	-1.1327577086	0.0021843600	0.0352666717	down
Os07g0220333	2.6529019926	0.0022674063	0.0364674466	up
Os01g0136200	1.9129483915	0.0023013149	0.0369128661	up
Os05g0551000	-1.2301779830	0.0023121095	0.0370357779	down
Os07g0142200	-3.1670241477	0.0023254581	0.0371488636	down
Os12g0170800	-2.0514901032	0.0023454041	0.0374068209	down
Os01g0675800	-1.2588203251	0.0023763266	0.0378387260	down
Os04g0677300	-1.3313971837	0.0024108737	0.0382959504	down

Os07g0238800	-1.2062896113	0.0024283264	0.0384927774	down
Os06g0690700	1.1151591118	0.0024293660	0.0384927774	up
Os06g0592500	1.7545598918	0.0025511973	0.0398500664	up
Os07g0131500	1.8153139416	0.0025540191	0.0398625307	up
Os01g0597600	-4.8655081324	0.0026306041	0.0406711211	down
Os05g0590100	-1.3679755264	0.0027126532	0.0417104837	down
Os04g0578600	-2.3181350183	0.0027414358	0.0420873424	down
Os07g0232850	1.8430025124	0.0028236046	0.0430468571	up
Os04g0395800	-2.0811726158	0.0028682716	0.0435520421	down
Os10g0368200	-1.2794975812	0.0028852114	0.0436817900	down
Os06g0146800	-1.1936392417	0.0029125446	0.0439941650	down
Os04g0517100	-1.2555443177	0.0029322216	0.0442235601	down
Os08g0114300	-1.3223065649	0.0030488759	0.0453920694	down
Os01g0905200	-1.4270165032	0.0031125454	0.0460614628	down
Os08g0531900	-1.6560873480	0.0032914472	0.0481303905	down
Os12g0181600	-1.8674427106	0.0033687439	0.0489337381	down

Table S4. The list of DEGs between FR and HI RNA-seq

ID	log2FoldChange	p-value	adjusted p-value	regulated
Os03g0280400	5.3293814622	0.0000000000	0.0000000000	up
Os05g0462000	2.9953950836	0.0000000000	0.0000000000	up
Os03g0124500	4.8220514703	0.0000000000	0.0000000000	up
Os02g0460200	5.1016872101	0.0000000000	0.0000000000	up
Os12g0189300	-1.7035050326	0.0000000000	0.0000000000	down
Os07g0147500	4.6908160238	0.0000000000	0.0000000000	up

Os04g0678700	2.2776995014	0.0000000000	0.0000000000	up
Os01g0813800	-2.2411217373	0.0000000000	0.0000000000	down
Os04g0635650	-3.3257791856	0.0000000000	0.0000000000	down
Os01g0203000	1.4544609637	0.0000000000	0.0000000000	up
Os12g0569500	-1.2424187494	0.0000000000	0.0000000000	down
Os11g0210600	4.0027285167	0.0000000000	0.0000000000	up
Os03g0736900	-1.5966384799	0.0000000000	0.0000000000	down
Os09g0470500	1.2870249818	0.0000000000	0.0000000000	up
Os08g0470700	1.9726736400	0.0000000000	0.0000000000	up
Os03g0815100	-1.0301192277	0.0000000000	0.0000000000	down
Os10g0160600	-2.9892786992	0.0000000000	0.0000000000	down
Os04g0322100	-2.6455587453	0.0000000000	0.0000000000	down
Os01g0883800	1.2584206886	0.0000000000	0.0000000000	up
Os01g0511000	-2.2044437712	0.0000000000	0.0000000000	down
Os01g0871500	-1.4051292045	0.0000000000	0.0000000000	down
Os07g0622700	-2.9427194189	0.0000000000	0.0000000000	down
Os03g0154000	-1.5066169468	0.0000000000	0.0000000000	down
Os01g0720400	1.1848965578	0.0000000000	0.0000000000	up
Os07g0413800	1.0068440689	0.0000000000	0.0000000000	up
Os01g0286100	1.5494730246	0.0000000000	0.0000000000	up
Os01g0775100	-1.1246843499	0.0000000000	0.0000000000	down
Os03g0439700	-1.3944715628	0.0000000000	0.0000000000	down
Os01g0854000	1.5910944039	0.0000000000	0.0000000000	up
Os04g0542200	1.0041840699	0.0000000000	0.0000000001	up
novel.212	2.9663354312	0.0000000000	0.0000000001	up
Os01g0141000	-4.1090335451	0.0000000000	0.0000000001	down

Os07g0111900	1.0899943636	0.0000000000	0.0000000002	up
Os05g0390800	1.1431155996	0.0000000000	0.0000000003	up
Os01g0952900	-3.6048466937	0.0000000000	0.0000000031	down
Os03g0725200	-2.4794983776	0.0000000000	0.0000000052	down
Os01g0555100	1.4031886825	0.0000000000	0.0000000066	up
Os03g0272900	1.4974412515	0.0000000000	0.0000000100	up
Os10g0528300	-1.3129762840	0.0000000000	0.0000000172	down
Os03g0751100	-2.2291809337	0.0000000001	0.0000000284	down
Os04g0548700	1.7492798947	0.0000000001	0.0000000319	up
Os01g0326300	-3.5180706076	0.0000000001	0.0000000335	down
Os01g0746400	2.0251020797	0.0000000001	0.0000000370	up
novel.602	-2.3338363145	0.0000000002	0.0000000643	down
Os05g0592300	-1.3054032550	0.0000000002	0.0000000662	down
Os01g0963000	-1.8070959858	0.0000000002	0.0000000662	down
Os02g0603600	-1.2278620549	0.0000000002	0.0000000790	down
Os05g0551100	-3.0325428426	0.0000000007	0.0000002321	down
Os09g0127300	-1.8633929333	0.0000000011	0.0000003487	down
Os06g0160700	1.1421268598	0.0000000012	0.0000003714	up
Os07g0617000	-1.3124947854	0.0000000013	0.0000003968	down
Os03g0238600	1.4423209129	0.0000000021	0.0000006339	up
Os01g0192900	-3.7052599995	0.0000000024	0.0000007148	down
Os01g0740500	1.1720085479	0.0000000036	0.0000010099	up
Os03g0276500	-1.0585801077	0.0000000061	0.0000015844	down
Os03g0379300	-2.4602722289	0.0000000071	0.0000018288	down
Os06g0228200	1.0114094736	0.0000000080	0.0000020319	up
Os08g0203400	-5.0184666524	0.0000000084	0.0000021111	down

Os01g0952800	-3.8239174542	0.0000000144	0.0000033479	down
Os07g0671000	3.9304050653	0.0000000167	0.0000038359	up
Os01g0227700	-1.6487027286	0.0000000173	0.0000039453	down
Os01g0902100	3.7874481744	0.0000000217	0.0000048761	up
Os07g0418500	-1.1223988533	0.0000000221	0.0000049107	down
Os07g0147550	3.9081348489	0.0000000284	0.0000059848	up
Os10g0394700	1.2974345275	0.0000000345	0.0000071156	up
Os10g0195250	-3.7192359270	0.0000000403	0.0000081351	down
Os03g0183200	-1.1669130763	0.0000000453	0.0000089611	down
Os03g0100020	-1.9560360571	0.0000000540	0.0000105707	down
Os11g0690466	1.4949179726	0.0000000689	0.0000130925	up
Os03g0293700	-6.6499058551	0.0000000731	0.0000135146	down
Os09g0358300	1.2101203178	0.0000000732	0.0000135146	up
Os03g0439800	-1.0918888229	0.0000000776	0.0000141930	down
Os09g0493000	-1.4210029940	0.0000001214	0.0000210297	down
Os05g0518000	1.4499829839	0.0000001238	0.0000212659	up
Os01g0667900	-1.0194347037	0.0000001646	0.0000273086	down
Os11g0552000	-1.1834230123	0.0000001761	0.0000289812	down
Os07g0162600	1.0953532228	0.0000002442	0.0000386842	up
Os05g0139100	2.1703974985	0.0000003667	0.0000539970	up
Os01g0601000	2.2395290454	0.0000003668	0.0000539970	up
Os09g0344500	1.2832325769	0.0000004848	0.0000687777	up
Os01g0940800	-1.1965827663	0.0000005004	0.0000704821	down
Os02g0802700	1.0379049324	0.0000005173	0.0000723417	up
novel.923	-6.6439835652	0.0000005288	0.0000734327	down
Os11g0154900	-1.9729001634	0.0000007185	0.0000927737	down

Os07g0561800	-1.1891867588	0.0000007195	0.0000927737	down
Os04g0462500	-1.2340500865	0.0000008242	0.0001041150	down
Os06g0313440	1.4717391330	0.0000008299	0.0001041532	up
Os09g0554300	-1.2274772861	0.0000008999	0.0001108144	down
Os02g0571800	1.2557195139	0.0000009285	0.0001129148	up
Os06g0599200	-2.3598794565	0.0000010213	0.0001234284	down
Os08g0130100	-1.1812438789	0.0000010674	0.0001266589	down
Os07g0142100	-3.7234177574	0.0000010894	0.0001284885	down
Os01g0647200	-2.7706117713	0.0000011497	0.0001347884	down
Os01g0871600	-4.3721177254	0.0000011942	0.0001380528	down
Os07g0258400	-3.9151032903	0.0000012057	0.0001380528	down
Os12g0282000	-6.8568127593	0.0000013919	0.0001566249	down
Os08g0560000	-1.0157756264	0.0000016560	0.0001811365	down
Os02g0632700	-1.1831561402	0.0000016930	0.0001831383	down
novel.1186	1.6667978547	0.0000018995	0.0002010290	up
Os11g0247000	-1.0432566174	0.0000020312	0.0002135734	down
Os03g0320100	1.0863362306	0.0000021579	0.0002223674	up
Os07g0108900	5.4882436259	0.0000022527	0.0002309222	up
Os01g0607900	-1.1690885837	0.0000023485	0.0002382459	down
novel.147	-6.2875593839	0.0000024971	0.0002494393	down
Os12g0236100	-4.0514367380	0.0000026713	0.0002654933	down
Os08g0499300	-1.1427970833	0.0000031163	0.0003050742	down
Os03g0679800	1.3914978278	0.0000032027	0.0003119704	up
Os04g0231200	-2.0718874800	0.0000034495	0.0003343475	down
Os09g0358500	1.3986685533	0.0000034794	0.0003355867	up
Os03g0667300	-6.2513461888	0.0000037334	0.0003554400	down

Os11g0262600	-3.3714170839	0.0000038040	0.0003597977	down
Os02g0282500	1.6793571258	0.0000039707	0.0003715690	up
Os09g0359500	2.4739162838	0.0000039854	0.0003715690	up
novel.1282	1.2413138790	0.0000040575	0.0003764971	up
Os03g0140200	1.2899810698	0.0000047537	0.0004308889	up
Os08g0200750	2.2743600991	0.0000050721	0.0004555024	up
novel.34	3.7654746781	0.0000050975	0.0004555024	up
Os06g0566201	1.8861776336	0.0000054643	0.0004797531	up
Os09g0129500	-1.1464900226	0.0000055676	0.0004844809	down
Os11g0151002	1.0495325138	0.0000056746	0.0004916090	up
novel.693	-2.9270665114	0.0000057365	0.0004947770	down
Os01g0771000	-2.3658946835	0.0000062072	0.0005330277	down
Os08g0106100	-2.2440799891	0.0000063453	0.0005425126	down
Os01g0740600	1.2870309644	0.0000065332	0.0005561425	up
Os02g0208100	1.1446674701	0.0000065713	0.0005569683	up
Os01g0655500	-1.8035166242	0.0000066380	0.0005601919	down
Os03g0233000	1.1867463505	0.0000067201	0.0005646905	up
Os10g0160100	-3.9286331677	0.0000072965	0.0006027789	down
Os03g0192700	-1.2409282058	0.0000093617	0.0007381214	down
Os03g0817200	-1.1720951722	0.0000093872	0.0007381214	down
Os04g0578600	-3.5060488572	0.0000107503	0.0008254126	down
Os06g0264500	-1.0549119611	0.0000136943	0.0010079700	down
Os01g0218500	1.2759775956	0.0000138888	0.0010184568	up
Os09g0130300	-2.6758899649	0.0000150977	0.0010807232	down
Os01g0495701	-3.0173801783	0.0000151243	0.0010807232	down
Os10g0370500	-1.0491583203	0.0000157675	0.0011225916	down

Os03g0611100	2.2636333341	0.0000158331	0.0011231747	up
Os01g0369900	1.2141333046	0.0000179458	0.0012593592	up
Os07g0683200	-1.2970060629	0.0000187704	0.0013032096	down
Os03g0431600	-2.6824874770	0.0000209150	0.0014226575	down
Os12g0236225	-3.8509449470	0.0000209268	0.0014226575	down
Os03g0322900	-4.4965254210	0.0000212591	0.0014352838	down
Os05g0432200	1.2810546372	0.0000219419	0.0014662103	up
Os11g0284300	1.4729309454	0.0000224748	0.0014916425	up
Os02g0277700	1.1820372853	0.0000225512	0.0014916522	up
Os09g0491596	-1.7575362385	0.0000234521	0.0015460238	down
Os11g0284032	1.3415459197	0.0000258956	0.0016956875	up
Os07g0559100	2.1763455479	0.0000266634	0.0017287031	up
Os07g0142200	-4.3186445593	0.0000268736	0.0017322317	down
Os07g0258501	-4.1798483680	0.0000315182	0.0019906264	down
Os12g0282400	-3.3365784654	0.0000317400	0.0019964662	down
Os03g0270000	-1.8890433749	0.0000318146	0.0019964662	down
novel.91	-6.3427132553	0.0000326745	0.0020438803	down
Os05g0519300	-3.5886645408	0.0000386650	0.0023509997	down
Os06g0531600	-1.1125151034	0.0000401851	0.0024087498	down
Os04g0561550	2.5065183504	0.0000434797	0.0025641236	up
Os02g0579000	-3.5299425601	0.0000444213	0.0026117874	down
Os03g0718800	-1.0899827280	0.0000462029	0.0026975745	down
Os01g0241000	-1.0964008226	0.0000464606	0.0026985316	down
Os06g0294950	-9.2317726687	0.0000470538	0.0027096043	down
Os04g0381700	-5.1352811578	0.0000483533	0.0027520626	down
Os07g0142700	-1.6216237924	0.0000512893	0.0028939309	down

Os01g0720500	-2.0271249810	0.0000524256	0.0029332514	down
Os11g0267400	-1.1058357274	0.0000524887	0.0029332514	down
Os07g0437000	2.7859768065	0.0000570918	0.0031487335	up
Os12g0520200	-1.3337481056	0.0000613545	0.0033368302	down
Os09g0518000	-1.0513905313	0.0000748717	0.0039606710	down
Os02g0517900	1.3612990384	0.0000750503	0.0039606710	up
Os09g0449800	1.1202793860	0.0000764613	0.0040209400	up
Os02g0776400	1.0599874174	0.0000766030	0.0040209400	up
Os01g0748800	1.8752925095	0.0000825415	0.0042980875	up
Os01g0915000	-1.1876074989	0.0000842975	0.0043509592	down
Os07g0663700	1.2556126762	0.0000856415	0.0043894647	up
Os08g0508800	-1.5803394705	0.0000895535	0.0045424027	down
Os05g0253200	1.0874572965	0.0000906517	0.0045690524	up
Os01g0769700	1.3572301447	0.0000907204	0.0045690524	up
Os02g0571300	1.3766005164	0.0000907790	0.0045690524	up
Os06g0558300	-2.3488037835	0.0000956892	0.0047793351	down
Os11g0602750	2.5557852229	0.0000987556	0.0048826685	up
Os05g0398800	-1.4839188490	0.0001041560	0.0051109554	down
Os03g0752800	1.7264766679	0.0001063157	0.0051909099	up
Os02g0731500	-1.1706786523	0.0001098168	0.0053352428	down
Os02g0730000	-1.3758854844	0.0001149015	0.0055547090	down
Os10g0146901	-1.4943254711	0.0001166987	0.0056001066	down
Os02g0526700	-1.1157425167	0.0001183848	0.0056671294	down
Os01g0800900	-9.1944812171	0.0001204910	0.0057011455	down
Os09g0400400	-2.0939277128	0.0001306125	0.0060742583	down
Os04g0517500	1.0724730063	0.0001344156	0.0062068941	up

Os07g0190000	1.4099181055	0.0001349387	0.0062163873	up
Os12g0111600	-1.0004873881	0.0001359276	0.0062472473	down
Os04g0316200	-2.2477939142	0.0001414649	0.0064676810	down
Os04g0390100	-1.6910331480	0.0001439679	0.0065400192	down
Os02g0187700	-1.1785692226	0.0001676743	0.0073772917	down
Os10g0533500	1.0793648844	0.0001712141	0.0075161440	up
novel.576	1.3548214598	0.0001857514	0.0080639186	up
Os04g0606000	-1.1013144080	0.0001882901	0.0081371001	down
Os04g0629300	1.2301952528	0.0001886302	0.0081371001	up
Os01g0364800	1.1153973216	0.0002133580	0.0089259329	up
Os12g0236200	-2.8942362295	0.0002250802	0.0093762662	down
Os06g0157500	1.5350798119	0.0002275090	0.0094573230	up
Os03g0254250	1.6749779087	0.0002338753	0.0096606054	up
Os12g0460100	1.2089225586	0.0002340122	0.0096606054	up
Os05g0449100	1.3821957957	0.0002490684	0.0101172428	up
Os01g0139700	1.2190335159	0.0002829783	0.0112610403	up
Os05g0472700	2.8461667007	0.0003026908	0.0119724930	up
Os03g0646100	2.0780919048	0.0003087346	0.0121624038	up
Os01g0649900	1.0525231614	0.0003207318	0.0125341477	up
Os01g0613500	-2.1005341513	0.0003464013	0.0134567290	down
Os08g0237000	-1.0996208016	0.0003522178	0.0136425024	down
Os03g0254200	1.0794799650	0.0004002280	0.0151275366	up
Os02g0633066	1.8753943546	0.0004022230	0.0151736482	up
novel.146	1.2115881826	0.0004069691	0.0152937574	up
Os10g0328600	3.2778115958	0.0004105942	0.0153247366	up
Os10g0331600	-1.0047896950	0.0004255852	0.0158413164	down

Os05g0551000	-2.1788861326	0.0004325358	0.0159919485	down
Os02g0208500	2.1878462871	0.0004488812	0.0163661914	up
novel.1261	-2.3476185441	0.0005894953	0.0203917472	down
Os10g0468500	1.1637270035	0.0006024880	0.0208044314	up
Os01g0619900	1.9627362042	0.0006334200	0.0215307802	up
Os09g0544800	-1.0224038474	0.0006855292	0.0229828354	down
Os06g0157700	1.6482443340	0.0007005827	0.0233674778	up
Os04g0405500	-3.7972153231	0.0007199775	0.0237684620	down
Os11g0189600	1.1879032866	0.0007207969	0.0237684620	up
Os06g0690700	1.3134087785	0.0007227309	0.0237684620	up
Os01g0826800	-1.2199017697	0.0007388219	0.0241089888	down
Os03g0719400	-1.1052109903	0.0007423789	0.0241445790	down
Os04g0489600	-1.8314570121	0.0007581161	0.0245747590	down
novel.567	-1.2334229762	0.0008149411	0.0260289262	down
Os01g0871400	-1.3604518321	0.0008280188	0.0264035502	down
Os09g0472900	1.4287209181	0.0008568914	0.0271473727	up
Os04g0468000	-1.1884005413	0.0009048004	0.0284248343	down
Os10g0492400	-1.2934535840	0.0009059245	0.0284248343	down
novel.219	-1.1904052708	0.0009324283	0.0290700844	down
Os04g0171600	2.5149494972	0.0009386025	0.0291696804	up
Os08g0179000	1.1436750795	0.0009471022	0.0293406857	up
novel.814	3.7995330878	0.0009770085	0.0301241736	up
Os01g0217500	1.7284524150	0.0010484864	0.0314907330	up
Os08g0403300	-1.8420569721	0.0010486724	0.0314907330	down
novel.90	-8.3185462435	0.0011025230	0.0325585176	down
Os05g0375400	-1.6551850296	0.0011156682	0.0328167800	down

Os01g0731100	-1.9954578894	0.0012990453	0.0369680358	down
Os10g0562900	-1.4513392577	0.0013306303	0.0378119179	down
novel.682	1.8809528623	0.0013327226	0.0378164857	up
Os05g0525900	-1.2138190997	0.0013690507	0.0384288692	down
Os05g0582000	-1.3479141787	0.0014105705	0.0392852906	down
Os09g0479000	1.0069283133	0.0014229829	0.0395746901	up
Os07g0182900	1.2128494509	0.0014701713	0.0406560513	up
Os03g0307200	-3.3164046818	0.0015163142	0.0413783467	down
Os07g0537500	-1.4543004924	0.0016407483	0.0434698392	down
Os04g0526800	1.6455659336	0.0016484002	0.0436045748	up
Os12g0230133	1.4217003970	0.0018518864	0.0473964663	up
Os10g0205700	-1.4324006037	0.0019263769	0.0486664948	down
Os08g0492500	1.1973347301	0.0019395622	0.0487479943	up
Os11g0546500	1.2460271934	0.0019420616	0.0487482354	up
Os01g0278000	-1.3843846956	0.0019954290	0.0498956177	down
Os01g0286500	1.6701617061	0.0020069828	0.0499768079	up

Table S5. The list of DEGs between HI and CK RNA-seq

ID	log2FoldChange	p-value	adjusted p-value	regulated
Os06g0253100	2.2415705488	0.0000000000	0.0000000000	up
Os08g0546800	2.0107798159	0.0000000000	0.0000000000	up
Os04g0683700	-1.3558622182	0.0000000000	0.0000000000	down
Os11g0143300	-2.0867946150	0.0000000000	0.0000000000	down
Os04g0612500	-1.3596239083	0.0000000000	0.0000000000	down
Os08g0556900	-2.1598914158	0.0000000000	0.0000000000	down
Os03g0782200	-2.2909808615	0.0000000000	0.0000000000	down

Os08g0455900	2.6152757892	0.0000000000	0.0000000000	up
Os12g0139400	-1.6113322189	0.0000000000	0.0000000002	down
Os11g0598500	2.1983347651	0.0000000000	0.0000000002	up
Os09g0526600	1.3260778930	0.0000000000	0.0000000003	up
Os06g0607100	-1.5520122095	0.0000000000	0.0000000005	down
Os08g0539700	1.5374093944	0.0000000000	0.0000000007	up
Os02g0770800	-2.4681701614	0.0000000000	0.0000000010	down
Os05g0407100	1.9487483307	0.0000000000	0.0000000081	up
Os07g0631200	1.4567041672	0.0000000000	0.0000000083	up
Os03g0760000	1.6017025933	0.0000000000	0.0000000083	up
Os01g0556650	-1.2287633803	0.0000000000	0.0000000104	down
Os03g0254200	-1.5981280658	0.0000000000	0.0000000104	down
Os03g0233000	-1.5604003473	0.0000000000	0.0000000171	down
Os04g0680400	-1.3423237772	0.0000000000	0.0000000318	down
Os01g0547600	-2.3969029206	0.0000000001	0.0000000827	down
Os01g0314800	-1.4935115564	0.0000000002	0.0000001614	down
Os03g0276500	1.2154299747	0.0000000003	0.0000001642	up
Os10g0533500	-1.2555342936	0.0000000004	0.0000002157	down
Os02g0306401	1.4481336188	0.0000000004	0.0000002436	up
Os11g0644500	-1.6062114386	0.0000000009	0.0000004618	down
Os06g0141200	-1.8155374149	0.0000000010	0.0000005084	down
Os01g0555100	-1.6607933330	0.0000000010	0.0000005211	down
Os06g0228200	-1.1181779801	0.0000000011	0.0000005611	down
Os03g0725200	1.4530356121	0.0000000013	0.0000006275	up
novel.674	-1.3443515734	0.0000000014	0.0000006275	down
Os12g0570700	-1.1062848866	0.0000000014	0.0000006512	down

Os06g0179000	-1.1113893035	0.0000000032	0.0000014265	down
Os01g0915000	1.9804817571	0.0000000058	0.0000024253	up
Os10g0468500	-1.9891318884	0.0000000069	0.0000027656	down
Os07g0175600	-1.8186429840	0.0000000081	0.0000031448	down
Os07g0684100	1.7185777896	0.0000000099	0.0000037804	up
Os12g0257600	-3.7972337118	0.0000000105	0.0000039455	down
Os01g0631200	-1.0133673357	0.0000000131	0.0000048210	down
Os01g0138500	-1.2717769595	0.0000000162	0.0000058489	down
Os03g0254250	-2.1166390917	0.0000000200	0.0000071125	down
Os02g0259900	1.9612823510	0.0000000215	0.0000074781	up
Os05g0562300	2.5141433719	0.0000000243	0.0000083345	up
Os07g0523965	-2.0660279378	0.0000000330	0.0000110907	down
Os11g0514500	-1.5012568227	0.0000000376	0.0000122236	down
Os04g0675400	1.0657073198	0.0000000408	0.0000130448	up
Os01g0959200	-2.1874870486	0.0000000417	0.0000131289	down
Os01g0700100	-1.3333192524	0.0000000812	0.0000243744	down
Os02g0739400	-2.0683109723	0.0000001242	0.0000367122	down
Os04g0635650	1.2697990355	0.0000002525	0.0000713991	up
Os08g0355400	-1.1226181729	0.0000005708	0.0001485078	down
Os01g0326300	2.4827122742	0.0000005789	0.0001486312	up
Os05g0412800	-1.5219121335	0.0000007900	0.0001879932	down
Os05g0460000	1.1962819150	0.0000014033	0.0003147170	up
Os08g0520600	3.4031445694	0.0000015134	0.0003355541	up
Os08g0334900	-2.1097235753	0.0000017502	0.0003794539	down
Os05g0567600	-2.3510315579	0.0000017892	0.0003836408	down
Os05g0134400	-2.5185979595	0.0000024011	0.0004964112	down

Os01g0704100	-1.4536414992	0.0000031558	0.0006283194	down
Os04g0387000	1.0703127846	0.0000033470	0.0006530685	up
Os02g0578000	-1.6444569535	0.0000040387	0.0007504974	down
Os09g0418000	-1.6065482165	0.0000049798	0.0008675571	down
Os03g0370400	-2.6888486017	0.0000053740	0.0009198074	down
Os06g0129100	1.0892873014	0.0000075655	0.0012509964	up
Os01g0613500	1.7749097806	0.0000092102	0.0014852055	up
Os09g0494500	1.5381685883	0.0000094980	0.0015190523	up
Os02g0208500	-2.4184139836	0.0000096835	0.0015302747	down
Os07g0663900	-2.7905534520	0.0000097250	0.0015302747	down
Os12g0104400	-1.6065406296	0.0000099254	0.0015493218	down
Os03g0236200	-1.8710934519	0.0000101600	0.0015733452	down
Os03g0347900	-1.1253092571	0.0000108087	0.0016227588	down
Os08g0140300	-2.1197276731	0.0000108117	0.0016227588	down
Os02g0674233	1.1236754915	0.0000111935	0.0016672356	up
Os07g0523400	-1.5150978677	0.0000119410	0.0017387510	down
Os01g0597600	-5.7628789058	0.0000134391	0.0019281181	down
Os06g0696600	-1.3659408977	0.0000148448	0.0020689454	down
Os03g0275300	1.0566917179	0.0000167900	0.0022909494	up
Os01g0337500	-2.2092115374	0.0000199974	0.0026364086	down
Os05g0563600	-2.4844733550	0.0000261237	0.0033375487	down
Os01g0864500	-1.6704879047	0.0000262069	0.0033375487	down
Os10g0158700	1.0569486842	0.0000291643	0.0036245434	up
Os11g0471300	-1.3599215090	0.0000313853	0.0038274428	down
Os08g0534350	-1.2260425940	0.0000375659	0.0043891373	down
Os09g0426500	-1.3117650040	0.0000410028	0.0047313231	down

Os04g0121800	-1.4472268756	0.0000412221	0.0047313231	down
Os10g0139700	-1.1584951270	0.0000424101	0.0048392122	down
Os01g0720500	-1.7018905218	0.0000444815	0.0050168933	down
Os08g0475100	-1.1512735945	0.0000534709	0.0058613749	down
Os04g0523100	-1.2275087049	0.0000574795	0.0061963559	down
Os01g0959100	-1.9135046091	0.0000613762	0.0065085469	down
Os09g0248100	-2.8772514907	0.0000639640	0.0067100296	down
Os02g0780200	-2.3733286775	0.0000713850	0.0072924816	down
Os06g0559400	1.6225644836	0.0000898553	0.0087662816	up
Os03g0734300	-2.1623746839	0.0000909738	0.0087926195	down
Os01g0556700	-1.2057655768	0.0000910265	0.0087926195	down
Os03g0661600	-1.5566617361	0.0000918492	0.0088283835	down
Os05g0413200	-1.3691561318	0.0000960703	0.0091888393	down
Os01g0524400	-1.2038973949	0.0001010447	0.0096174834	down
Os06g0338200	-1.1620172319	0.0001101627	0.0103382473	down
Os06g0610800	-1.6796796717	0.0001118312	0.0103931267	down
Os11g0442380	-1.2127732883	0.0001208727	0.0107827943	down
Os09g0433000	-2.3008245217	0.0001323366	0.0115274635	down
Os04g0460300	-1.1056007299	0.0001428798	0.0123357093	down
Os06g0118700	-1.5097133335	0.0001500548	0.0128981006	down
Os07g0564500	-1.3675551968	0.0001549162	0.0131996757	down
Os03g0386800	-1.7506858664	0.0001739143	0.0144400700	down
Os03g0129400	2.2272530414	0.0001809935	0.0149641780	up
Os06g0102100	-1.8857339420	0.0001948036	0.0159038004	down
Os03g0188500	-1.3930706436	0.0002010607	0.0159857843	down
novel.1148	-1.5448702537	0.0002056477	0.0161471982	down

Os07g0622700	1.3225153124	0.0002106684	0.0161865820	up
Os03g0752500	-1.5252342195	0.0002107109	0.0161865820	down
Os12g0594000	-1.6892666327	0.0002154271	0.0164195811	down
Os03g0838400	-1.8207846753	0.0002366720	0.0177498514	down
Os02g0460200	-1.2780480381	0.0002539131	0.0187664829	down
Os11g0323860	2.2613419932	0.0002787706	0.0202207141	up
Os12g0111600	1.0379611038	0.0002919357	0.0210193729	up
Os10g0527601	-2.3728384593	0.0003059067	0.0215482026	down
novel.1037	1.4428170861	0.0003617043	0.0243364659	up
novel.47	1.6541835381	0.0003712216	0.0248057423	up
Os01g0930400	-1.7227250488	0.0004361612	0.0279686926	down
Os11g0437600	3.8860858071	0.0004378778	0.0279686926	up
Os04g0517500	1.3634202326	0.0004564659	0.0289174133	up
Os08g0500700	1.2939956742	0.0004788428	0.0297553527	up
Os09g0494200	-1.1993455501	0.0004926922	0.0302308523	down
Os04g0337800	1.7725167924	0.0005081536	0.0309846669	up
Os03g0181100	-2.6467125814	0.0005176812	0.0313882698	down
Os01g0227700	1.1433141021	0.0005195988	0.0313882698	up
Os01g0849000	-1.6901274187	0.0005483929	0.0324936135	down
Os02g0569400	-2.4546730148	0.0005514955	0.0324936135	down
Os10g0465175	1.1555627416	0.0005527806	0.0324936135	up
Os04g0677300	-1.6281111183	0.0006521965	0.0373186431	down
Os07g0443500	-3.4985121684	0.0006781217	0.0382026322	down
Os08g0412800	-1.9190643307	0.0007878118	0.0426994004	down
novel.98	-1.2126361861	0.0007924017	0.0428292029	down
Os01g0831250	-1.5882189279	0.0008268725	0.0442025669	down

Os08g0531900	-1.9927409194	0.0008367297	0.0444857488	down
Os01g0927300	-2.5293955617	0.0008493279	0.0450328448	down
Os02g0282500	-1.3573992386	0.0008855976	0.0467021110	down
Os01g0511000	1.0813340624	0.0009005692	0.0469837075	up
Os01g0498300	-2.0696831279	0.0009054054	0.0470746293	down
Os10g0552700	-1.4758470619	0.0009101304	0.0470746293	down
Os10g0527400	-1.0502738494	0.0009415301	0.0484726511	down
Os03g0194600	-1.2478643411	0.0009446702	0.0485063303	down
Os04g0464100	-1.5439789601	0.0009561201	0.0487096996	down
Os03g0103200	-3.2241926562	0.0009656584	0.0489400707	down

Table S6. Primers used in qRT-PCR analysis.

pri ID	pri seq
Os03g0280400-F	TCCCCTGCCTCTTACATCCA
Os03g0280400-R	TCCTTCTCCAGCTCCTTCCA
Os07g0671000-F	TGGGAGCGCTACTACGA
Os07g0671000-R	GTCGTACATGTGGGTGGAG
Os07g0147500-F	GTTGATGGGTACAGCCCAATA
Os07g0147500-R	GAGTGATTGCCCAGAGAAGTAA
Os03g0752800-F	GCTGCTCAAGAAGGCGAATG
Os03g0752800-R	CATACATGAGTCGGTGGCGT
Os05g0462000-F	GAATGGTTCACCACCTGATAGAG
Os05g0462000-R	GTGACGACAGGGTTGATGTT
Os06g0157500-F	CTACACACTCGTGATGGTAGAC
Os06g0157500-R	CTCCAGTGGTACCAGGAATATC
Os06g0157700-F	CTTGTGATGGTAGACCCAGATG
Os06g0157700-R	GCTGCAGTAGTACCAGGAATATC
Os04g0678700-F	CTCATCATCCTCGGCTCCAT
Os04g0678700-R	TTGCTGTCCTTGTACGCCTT
Os01g0883800-F	GAAGTACTGCGAGGAGATGAAG
Os01g0883800-R	GTAGTTGCACCGCATGATTG
Os01g0286100-F	GATGAACTTCTCGCTCTTCTCC
Os01g0286100-R	GGTGACATTGGACGCCTTAT
Os01g0647200-F	CCAAGACGGCGGCATTATT
Os01g0647200-R	TCTGTCTCGGCCATCCTAC
Os04g0578600-F	GGGAATTGTGACAGGCATAGA
Os04g0578600-R	GAGAAGTCGAGGTTGATGAAGG
Os05g0375400-F	AACGAGAACCAGAAGGACGC
Os05g0375400-R	CTGATGGGGTAGACGTGCTG
Os02g0579000-F	GTGGTACTTCTTCTGCGTGAA
Os02g0579000-R	TGAAGATCTCCCGGTCCTT
Os01g0952800-F	GGATTTGGGAACAGGACATTCT
Os01g0952800-R	TGACGACTTTCTCCAACCTTTC
Os07g0142100-F	CTCAACTCGATCGACCATATACA
Os07g0142100-R	CTCTTCGCTATCGCCATTGA
Os07g0258400-F	AGTCAAGCCTCCGGTTAATG
Os07g0258400-R:	CAGGGCAGAGTGCAAGAATA
Os12g0236225-F	TCCTTTTACCCCTCTCTTTCTCC
Os12g0236225-R	CGACAGATAGGCCGACGAC
Os12g0236100-F	AGAGTGGGAAATGGCAGAAG
Os12g0236100-R	CAGTGTCGCAGTCCCTAAAT
Os07g0142200-F	GGCTTCCAATTCGGTTCTCT
Os07g0142200-R	GAATGGCTGGCATCGGT