

## **Supplementary Materials**

**Table S1.** The detail of Illumina sequencing identifiers.

<b>Characteristic</b>	<b>Implication/meaning/connotation/significance</b>
HWI-ST1276	Instrument – unique identifier of the sequencer
71	Run number – Run number on instrument
C1162ACXX	FlowCell ID – ID of flowcell
1	LaneNumber – positive integer
1101	TileNumber – positive integer
1208	X – x coordinate of the spot. Integer which can be negative
2458	Y – y coordinate of the spot. Integer which can be negative
1	ReadNumber - 1 for single reads; 1 or 2 for paired ends
N	whether it is filtered - NB : Y if the read is filtered out, not in the delivered fastq file, N otherwise
0	control number - 0 when none of the control bits are on, otherwise it is an even number
CGATGT	Illumina index sequences

**Table S2.** The quality assessment of sample sequencing output data.

<b>Sample</b>	<b>Raw Reads</b>	<b>Clean reads</b>	<b>Clean bases</b>	<b>Error (%)</b>	<b>Q20 (%)</b>	<b>Q30 (%)</b>	<b>GC (%)</b>
FCTc1_1	26558303	26523041	3.98G	0.02	98.07	94.31	42.77
FCTc1_2	26558303	26523041	3.98G	0.02	97.68	93.12	42.78
FCTc2_1	27551479	27498088	4.12G	0.02	98.05	94.27	42.68
FCTc2_2	27551479	27498088	4.12G	0.02	96.51	90.46	42.67
FCTc3_1	22226428	22191360	3.33G	0.02	98.09	94.33	42.85
FCTc3_2	22226428	22191360	3.33G	0.02	97.19	91.92	42.85
FCTf1_1	23940811	23898734	3.58G	0.02	98.07	94.28	39.94
FCTf1_2	23940811	23898734	3.58G	0.02	96.29	89.93	39.93
FCTf2_1	20924895	20887135	3.13G	0.02	98.04	94.23	39.93
FCTf2_2	20924895	20887135	3.13G	0.02	96.29	89.89	39.92
FCTf3_1	23336291	23307806	3.5G	0.02	98.10	94.35	40.40
FCTf3_2	23336291	23307806	3.5G	0.02	97.04	91.56	40.40
FCTi1_1	26321827	26282207	3.94G	0.02	98.02	94.18	41.45
FCTi1_2	26321827	26282207	3.94G	0.02	97.56	92.83	41.46
FCTi2_1	23076679	23031905	3.45G	0.02	98.05	94.27	41.36
FCTi2_2	23076679	23031905	3.45G	0.02	96.48	90.39	41.35
FCTi3_1	21139188	21102875	3.17G	0.02	98.04	94.27	41.89

FCTI3_2	21139188	21102875	3.17G	0.02	97.37	92.42	41.89
FCTt1_1	24972375	24937356	3.74G	0.02	98.09	94.34	40.57
FCTt1_2	24972375	24937356	3.74G	0.02	97.31	92.18	40.55
FCTt2_1	27363718	27303692	4.1G	0.02	98.12	94.38	40.12
FCTt2_2	27363718	27303692	4.1G	0.02	96.36	90.03	40.12
FCTt3_1	26427448	26386697	3.96G	0.02	98.11	94.39	40.41
FCTt3_2	26427448	26386697	3.96G	0.02	97.27	92.09	40.40
FCTte1_1	23431685	23399785	3.51G	0.02	98.07	94.32	42.33
FCTte1_2	23431685	23399785	3.51G	0.02	97.53	92.75	42.33
FCTte2_1	22569797	22541127	3.38G	0.02	98.02	94.16	42.39
FCTte2_2	22569797	22541127	3.38G	0.02	97.45	92.55	42.38
FCTte3_1	23928687	23898642	3.58G	0.02	98.00	94.10	42.64
FCTte3_2	23928687	23898642	3.58G	0.02	97.23	92.07	42.63
FCTx1_1	27005073	26966062	4.04G	0.02	98.09	94.31	41.82
FCTx1_2	27005073	26966062	4.04G	0.02	97.25	92.06	41.81
FCTx2_1	28403775	28355944	4.25G	0.02	98.11	94.38	41.68
FCTx2_2	28403775	28355944	4.25G	0.02	96.95	91.35	41.68
FCTx3_1	27825275	27769672	4.17G	0.02	98.08	94.34	41.60
FCTx3_2	27825275	27769672	4.17G	0.02	96.67	90.77	41.58
MCTc1_1	22651416	22620452	3.39G	0.02	98.07	94.28	42.39
MCTc1_2	22651416	22620452	3.39G	0.02	97.20	91.97	42.39
MCTc2_1	22169055	22135227	3.32G	0.02	98.01	94.13	42.57
MCTc2_2	22169055	22135227	3.32G	0.02	97.12	91.82	42.58
MCTc3_1	21707611	21676292	3.25G	0.02	98.09	94.33	42.39
MCTc3_2	21707611	21676292	3.25G	0.02	97.64	92.98	42.40
MCTf1_1	19720506	19691465	2.95G	0.02	97.36	93.98	41.37
MCTf1_2	19720506	19691465	2.95G	0.02	97.15	91.82	41.39
MCTf2_1	24934809	24899740	3.73G	0.02	98.01	94.10	42.24
MCTf2_2	24934809	24899740	3.73G	0.02	96.67	90.77	42.25
MCTf3_1	26849757	26804131	4.02G	0.02	98.05	94.22	41.67
MCTf3_2	26849757	26804131	4.02G	0.02	97.01	91.53	41.68
MCTI1_1	20907708	20879561	3.13G	0.02	98.03	94.19	41.29
MCTI1_2	20907708	20879561	3.13G	0.02	97.53	92.76	41.29
MCTI2_1	26369483	26334432	3.95G	0.02	98.03	94.16	41.64
MCTI2_2	26369483	26334432	3.95G	0.02	97.35	92.30	41.66
MCTI3_1	20946231	20912929	3.14G	0.02	98.08	94.32	41.43
MCTI3_2	20946231	20912929	3.14G	0.02	97.39	92.45	41.42
MCTt1_1	24656373	24557000	3.68G	0.02	98.06	94.20	42.13
MCTt1_2	24656373	24557000	3.68G	0.03	93.24	83.85	42.16

MCTt2_1	21458893	21422372	3.21G	0.02	98.02	94.20	42.23
MCTt2_2	21458893	21422372	3.21G	0.02	97.42	92.58	42.24
MCTt3_1	24834542	24782914	3.72G	0.02	97.99	94.14	42.23
MCTt3_2	24834542	24782914	3.72G	0.02	96.68	90.86	42.23
MCTte1_1	22118594	22076801	3.31G	0.02	97.96	94.11	42.41
MCTte1_2	22118594	22076801	3.31G	0.02	96.98	91.60	42.39
MCTte2_1	25766171	25721281	3.86G	0.02	97.96	94.15	42.64
MCTte2_2	25766171	25721281	3.86G	0.02	97.00	91.69	42.63
MCTte3_1	22657015	22612197	3.39G	0.02	97.95	94.08	42.42
MCTte3_2	22657015	22612197	3.39G	0.02	96.42	90.34	42.43
MCTx1_1	28331802	28283785	4.24G	0.02	98.15	94.45	41.70
MCTx1_2	28331802	28283785	4.24G	0.02	96.52	90.39	41.67
MCTx2_1	26023475	25966498	3.89G	0.02	98.06	94.30	41.81
MCTx2_2	26023475	25966498	3.89G	0.02	96.18	89.75	41.79
MCTx3_1	26247767	26206430	3.93G	0.02	98.10	94.31	41.67
MCTx3_2	26247767	26206430	3.93G	0.02	96.60	90.55	41.64

**Table S3.** List of splicing length and frequency distribution.

<b>Transcript length interval</b>	<b>200-500bp</b>	<b>500-1kbp</b>	<b>1k-2kbp</b>	<b>&gt;2kbp</b>	<b>Total</b>
Number of transcripts	137107	38224	25856	21759	222946
Number of Genes	34756	28353	15423	11365	89897

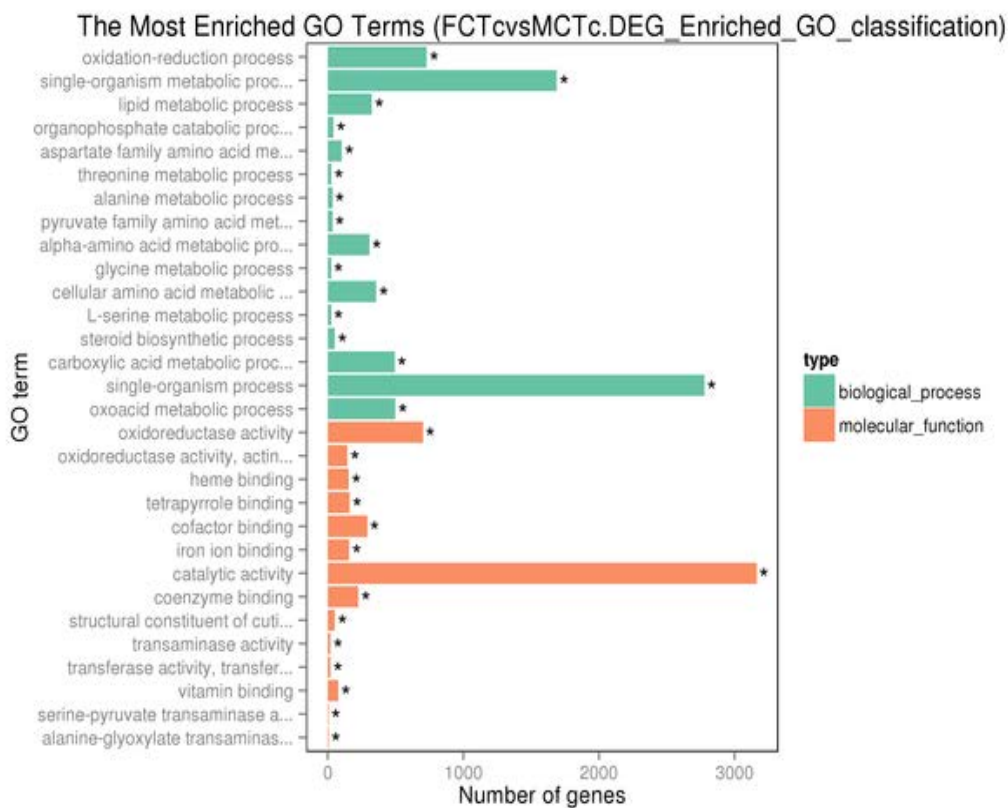
**Table S4.** List of splicing length distribution.

	<b>Min Length</b>	<b>Mean Length</b>	<b>Median Length</b>	<b>Max Length</b>	<b>N50</b>	<b>N90</b>	<b>Total Nucleotides</b>
Transcripts	201	807	374	31659	1584	280	179842879
Genes	201	1036	614	31659	1626	446	93149344

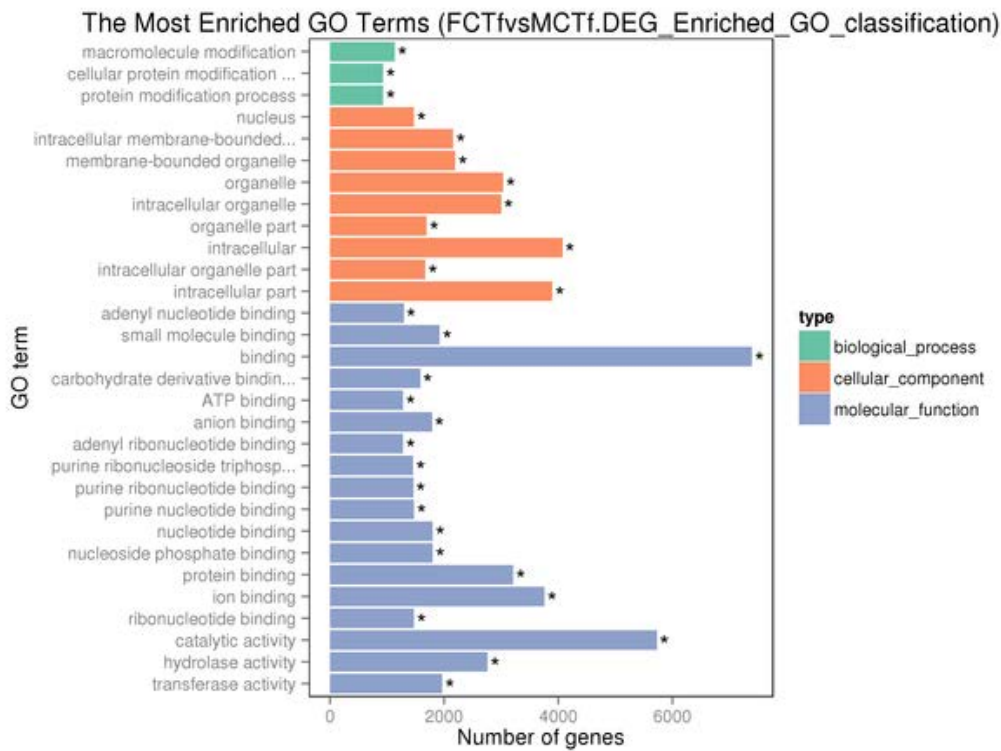
**Table S5.** The statistics of clean reads mapped to reference sequence.

<b>Sample name</b>	<b>Total reads</b>	<b>Total mapped</b>
FCTc1	53046082	43022214(81.10%)
FCTc2	54996176	44277360(80.51%)
FCTc3	44382720	35987122(81.08%)
FCTf1	47797468	38072994(79.65%)
FCTf2	41774270	33311418(79.74%)
FCTf3	46615612	37589608(80.64%)
FCTl1	52564414	40912264(77.83%)
FCTl2	46063810	35757220(77.63%)
FCTl3	42205750	32838820(77.81%)
FCTt1	49874712	39297964(78.79%)
FCTt2	54607384	42568446(77.95%)
FCTt3	52773394	41472038(78.59%)
FCTte1	46799570	36817424(78.67%)
FCTte2	45082254	35620418(79.01%)
FCTte3	47797284	37605278(78.68%)
FCTx1	53932124	44101118(81.77%)
FCTx2	56711888	46270594(81.59%)
FCTx3	55539344	45070232(81.15%)
MCTc1	45240904	36269316(80.17%)
MCTc2	44270454	35250956(79.63%)
MCTc3	43352584	34782328(80.23%)
MCTf1	39382930	32462026(82.43%)
MCTf2	49799480	41702126(83.74%)
MCTf3	53608262	44094472(82.25%)
MCTl1	41759122	32306986(77.37%)
MCTl2	52668864	41092678(78.02%)
MCTl3	41825858	32398618(77.46%)
MCTt1	49114000	38468044(78.32%)
MCTt2	42844744	34092386(79.57%)
MCTt3	49565828	39004940(78.69%)
MCTte1	44153602	33931496(76.85%)
MCTte2	51442562	39729462(77.23%)
MCTte3	45224394	34751238(76.84%)
MCTx1	56567570	45003570(79.56%)
MCTx2	51932996	40496860(77.98%)
MCTx3	52412860	41675238(79.51%)

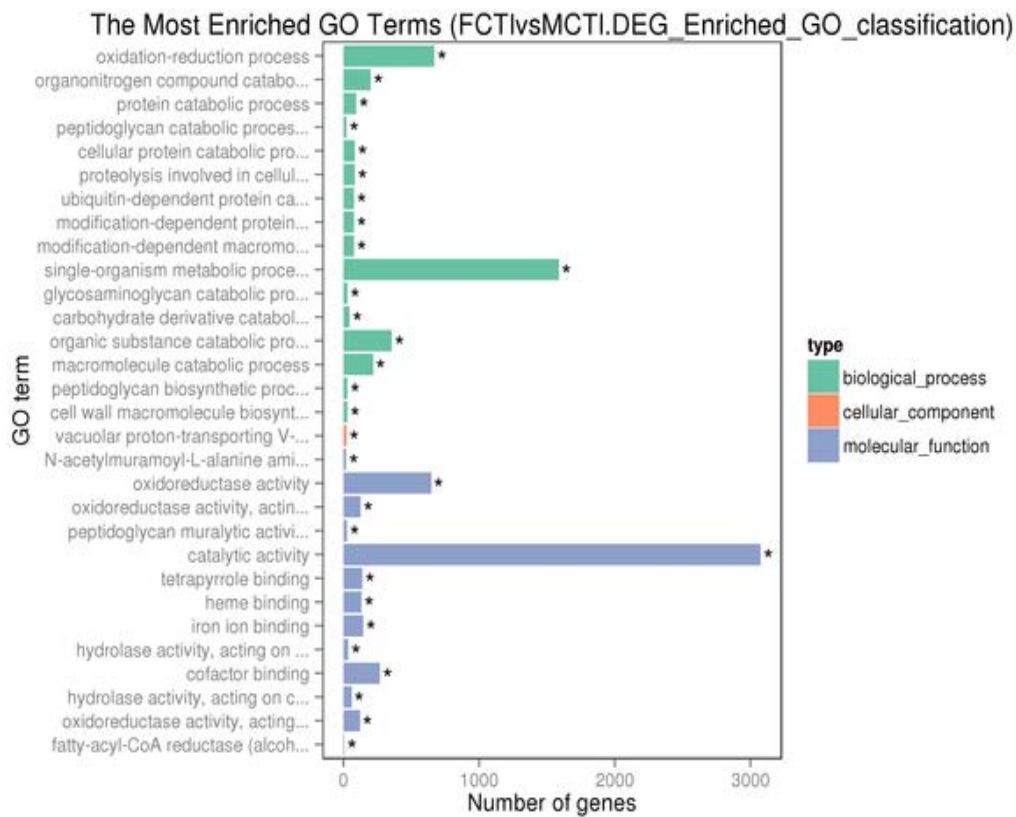
A



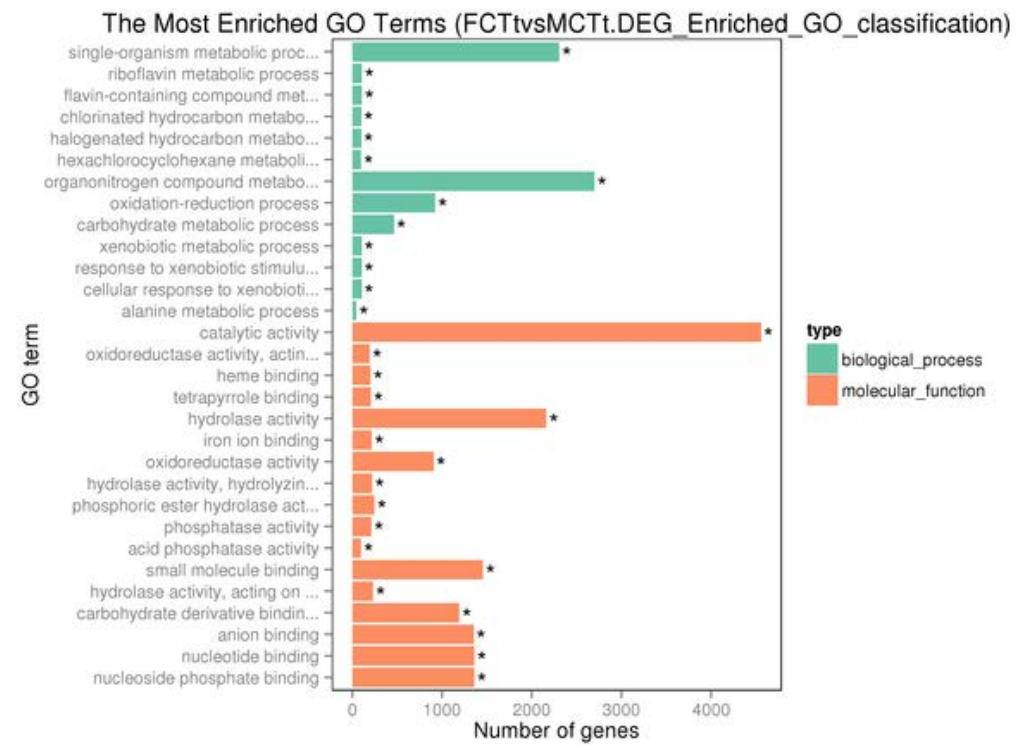
B



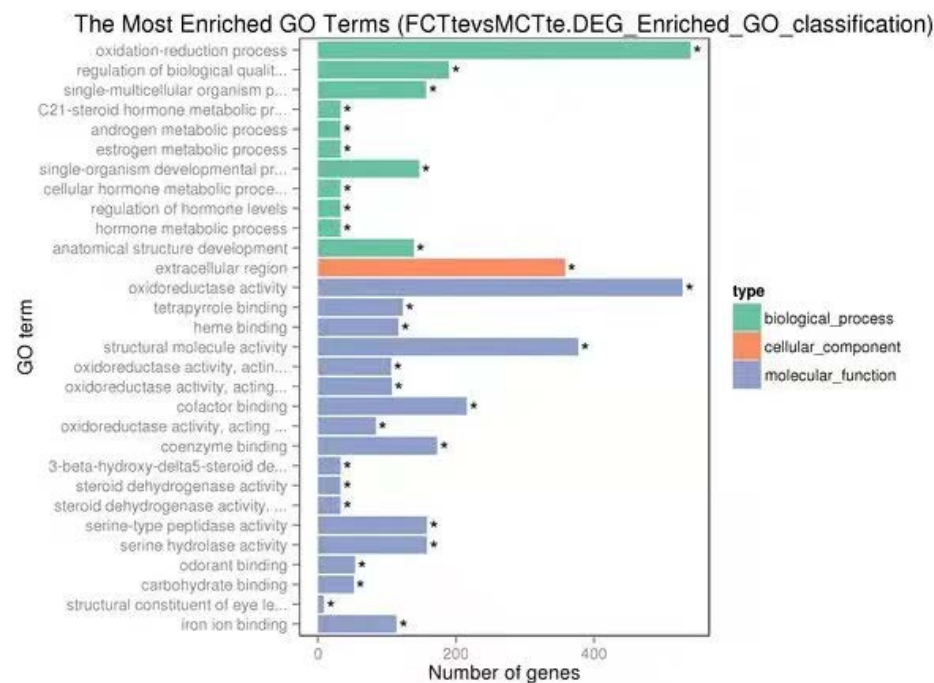
C



D



E



F

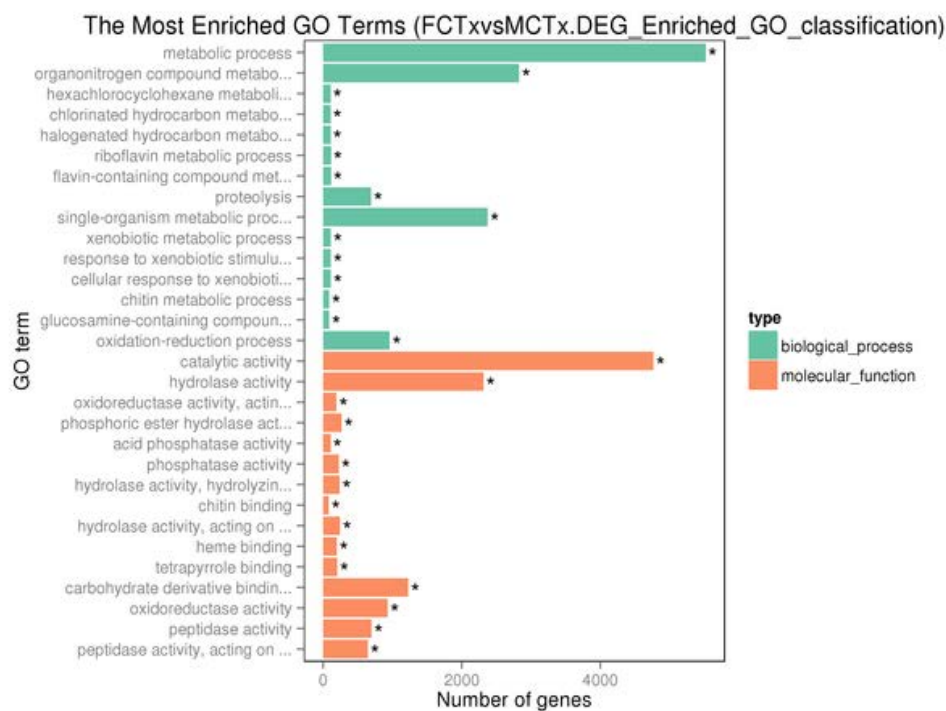
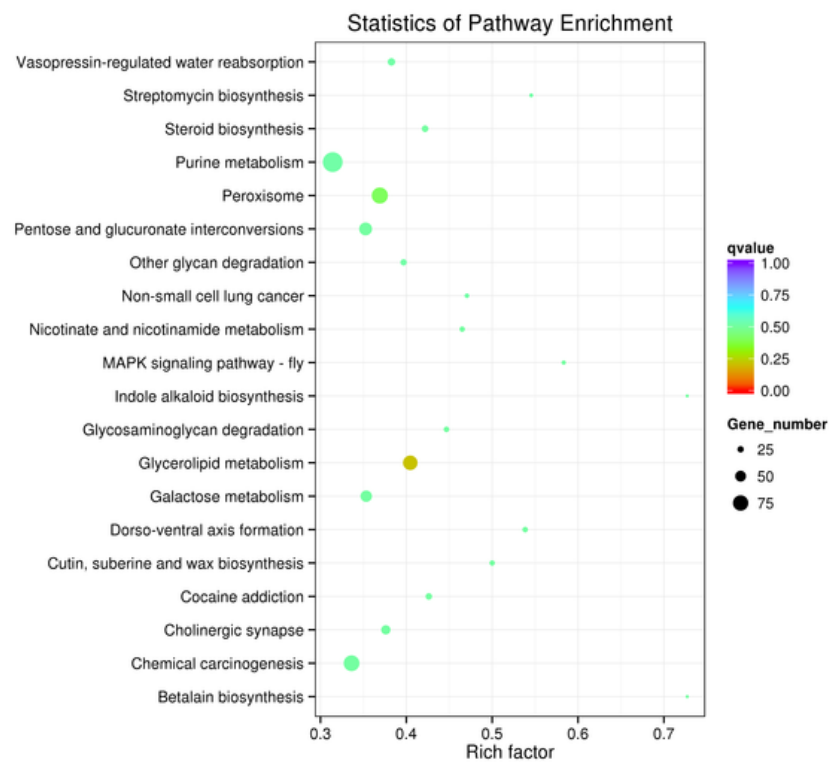


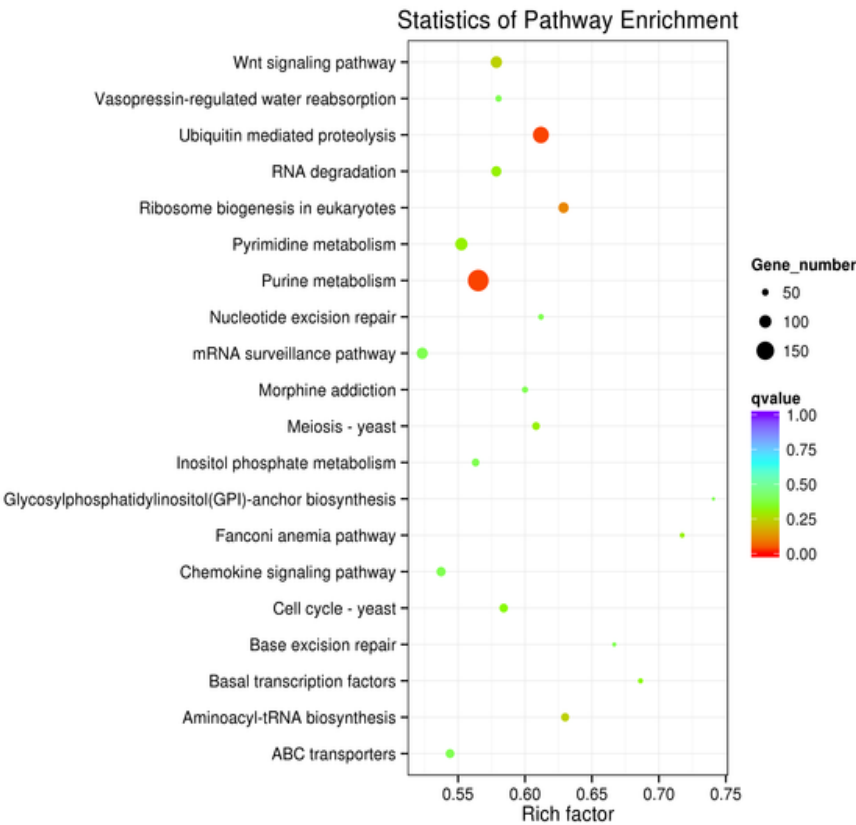
Figure S1. GO enrichment analysis of each sample between two groups (female vs male).

A (FCTc vs MCTc)

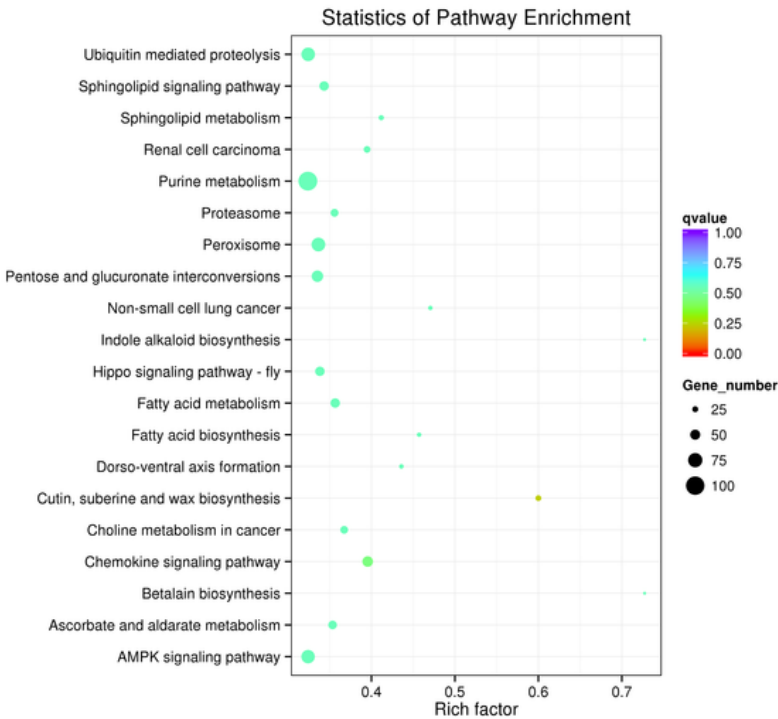




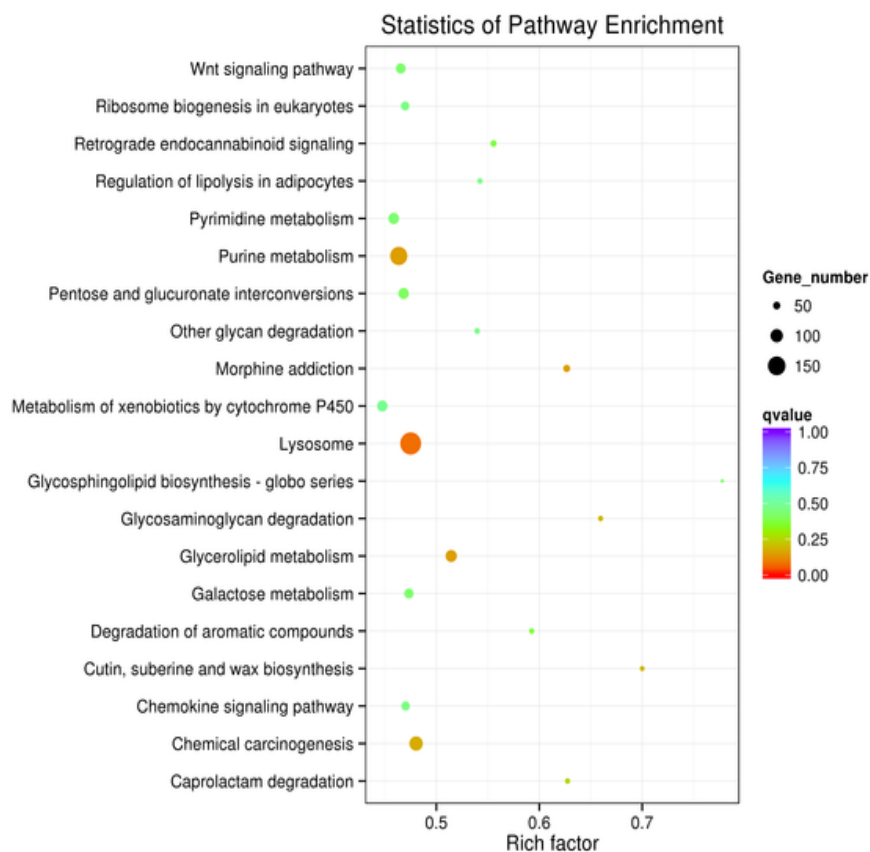
**B (FCTf vs MCTf)**



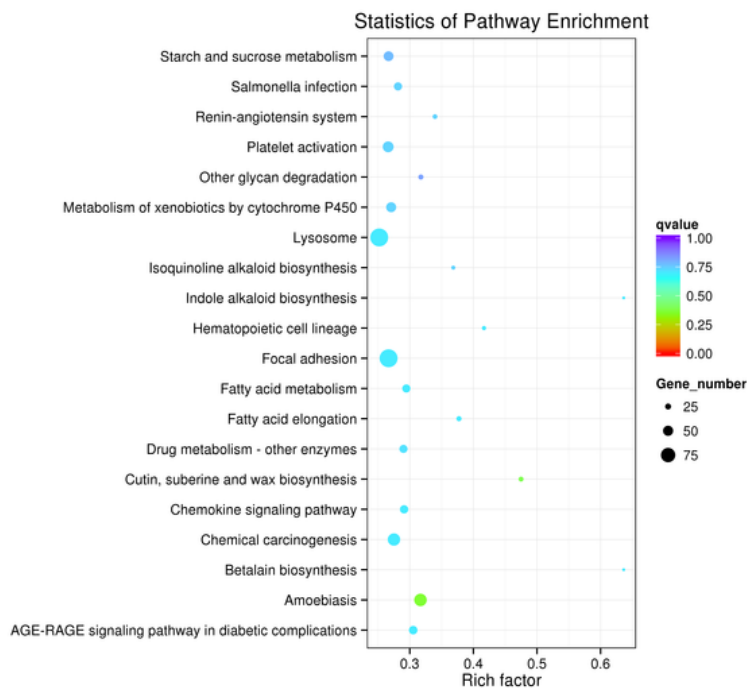
**C (FCTI vs MCTI)**



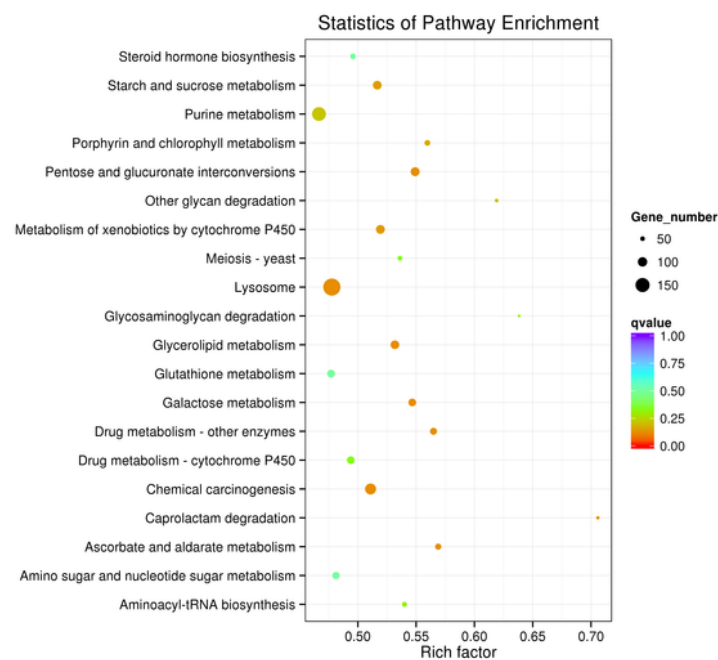
D (FCTt vs MCTt)



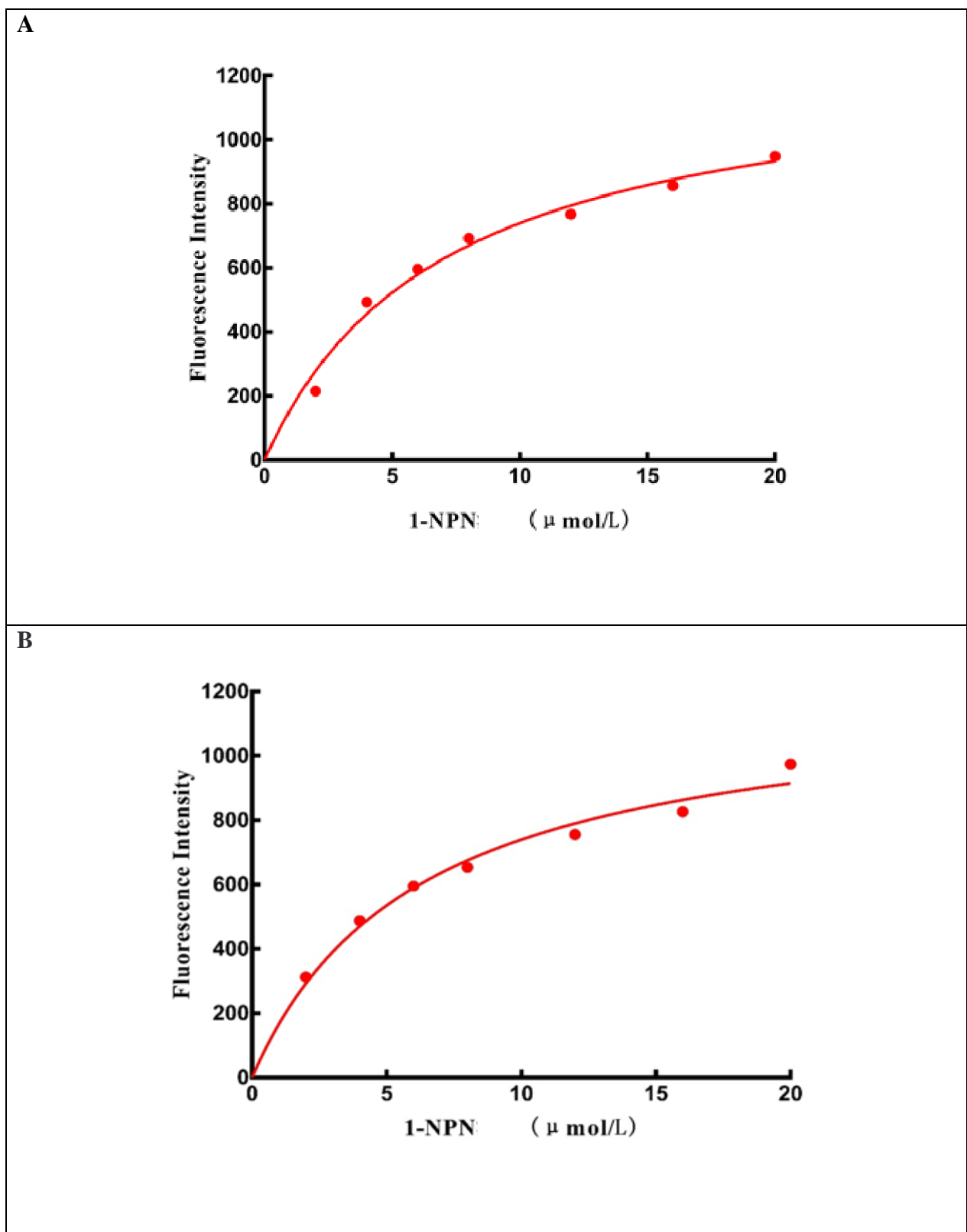
E (FCTte vs MCTte)



F (FCT<sub>x</sub> vs MCT<sub>x</sub>)



**Figure S2.** The statistics of 20 top KEGG pathways of DEGs.



**Figure S3.** The binding curves of (A) of CcreOBP6 and 1-NPN (B) CcreOBP10 and 1-NPN.