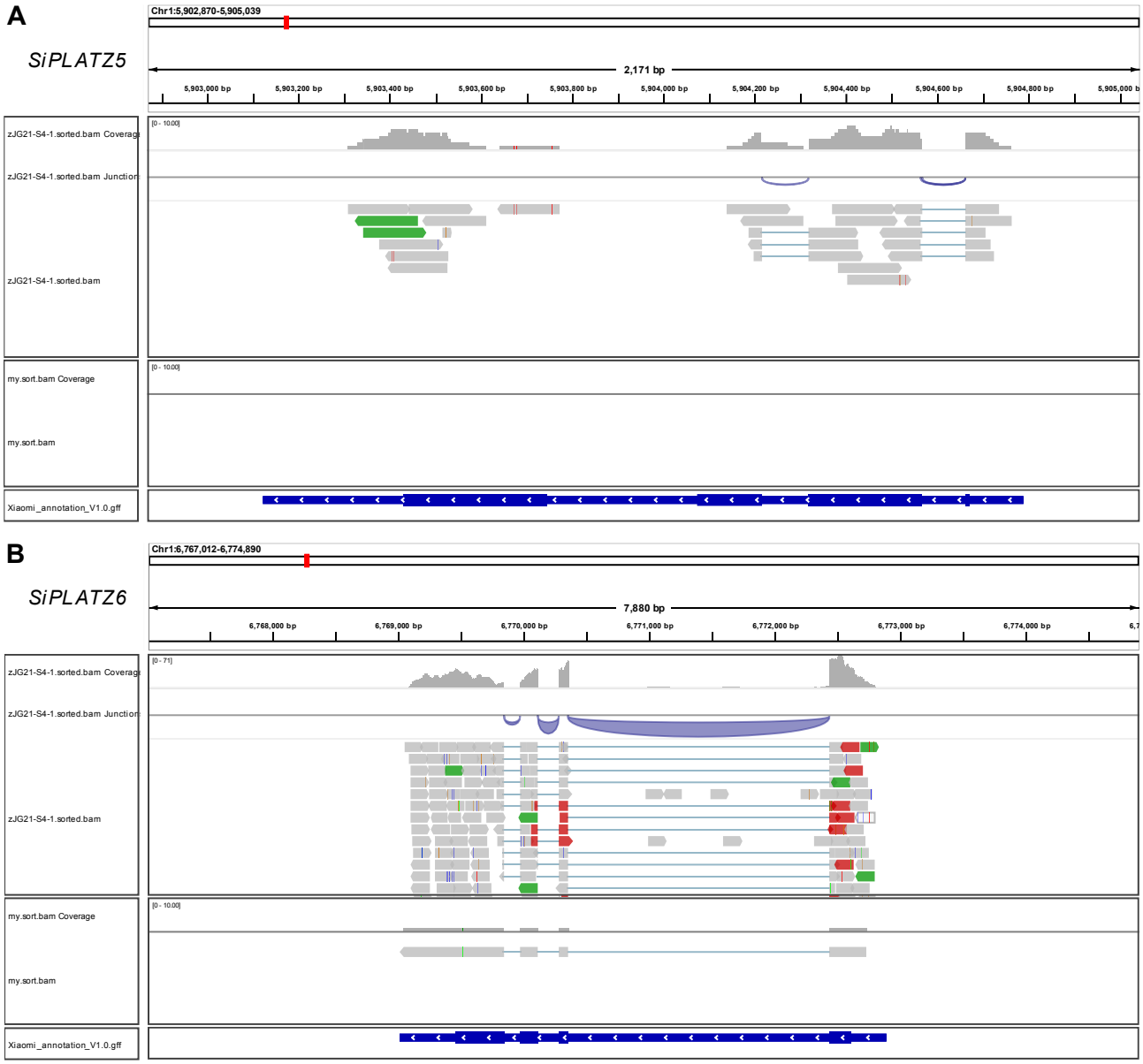
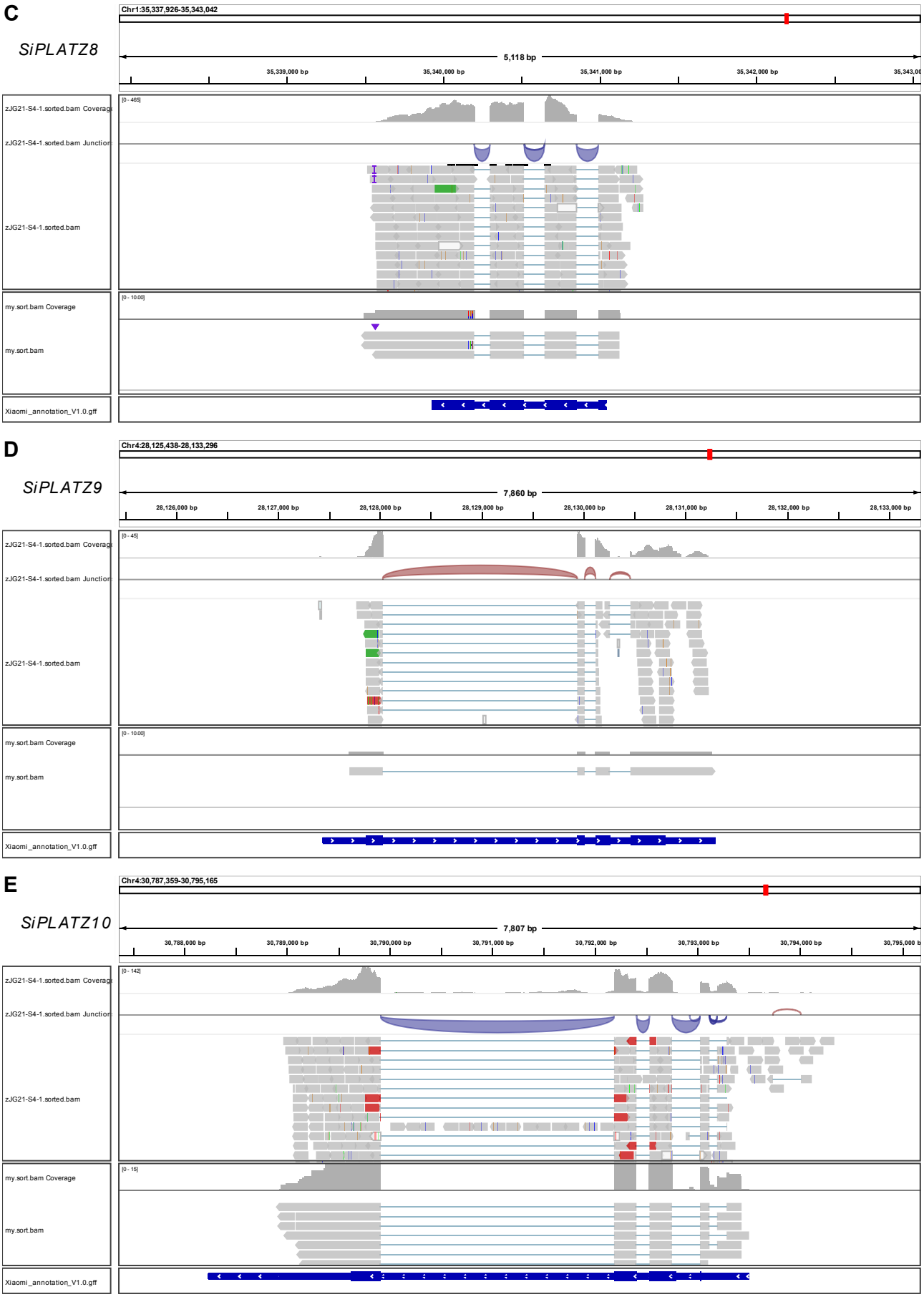
附图 1　*SiPLATZ*s 基因结构注释与二代测序及三代测序的 bam 文件比对

Appendix figure 1　Structural annotation of *SiPLATZ*s gene compared with bam file of second-generation sequencing and third-generation sequencing

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35,340,000 bp
35,341,000 bp
35,342,000 bp
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zJG21-S4-1.sorted.bam Junctions
zJG21-S4-1.sorted.bam
my.sort.bam Coverage
my.sort.bam
Xiaomi_annotation_V1.0.gff
D
SiPLATZ9
Chr4:28,125,438-28,133,296
7,860 bp
28,126,000 bp
28,127,000 bp
28,128,000 bp
28,129,000 bp
28,130,000 bp
28,131,000 bp
28,132,000 bp
28,133,000 bp
zJG21-S4-1.sorted.bam Coverage
zJG21-S4-1.sorted.bam Junctions
zJG21-S4-1.sorted.bam
my.sort.bam Coverage
my.sort.bam
Xiaomi_annotation_V1.0.gff
E
SiPLATZ10
Chr4:30,787,359-30,795,165
7,807 bp
30,788,000 bp
30,789,000 bp
30,790,000 bp
30,791,000 bp
30,792,000 bp
30,793,000 bp
30,794,000 bp
zJG21-S4-1.sorted.bam Coverage
zJG21-S4-1.sorted.bam Junctions
zJG21-S4-1.sorted.bam
my.sort.bam Coverage
my.sort.bam
Xiaomi_annotation_V1.0.gff


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16,219,000 bp
16,220,000 bp
16,221,000 bp
16,222,000 bp
16,223,000 bp
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zJG21-S4-1.sorted.bam Junctions
zJG21-S4-1.sorted.bam
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my.sort.bam
Xiaomi_annotation_V1.0.gff
G
SiPLATZ12
Chr5:24,439,769-24,442,235
2,468 bp
24,440,000 bp
24,440,200 bp
24,440,400 bp
24,440,600 bp
24,440,800 bp
24,441,000 bp
24,441,200 bp
24,441,400 bp
24,441,600 bp
24,441,800 bp
24,442,000 bp
zJG21-S4-1.sorted.bam Coverage
zJG21-S4-1.sorted.bam Junctions
zJG21-S4-1.sorted.bam
my.sort.bam Coverage
my.sort.bam
Xiaomi_annotation_V1.0.gff
H
SiPLATZ13
Chr6:34,796,866-34,801,935
5,071 bp
34,797,000 bp
34,798,000 bp
34,799,000 bp
34,800,000 bp
34,801,000 bp
zJG21-S4-1.sorted.bam Coverage
zJG21-S4-1.sorted.bam Junctions
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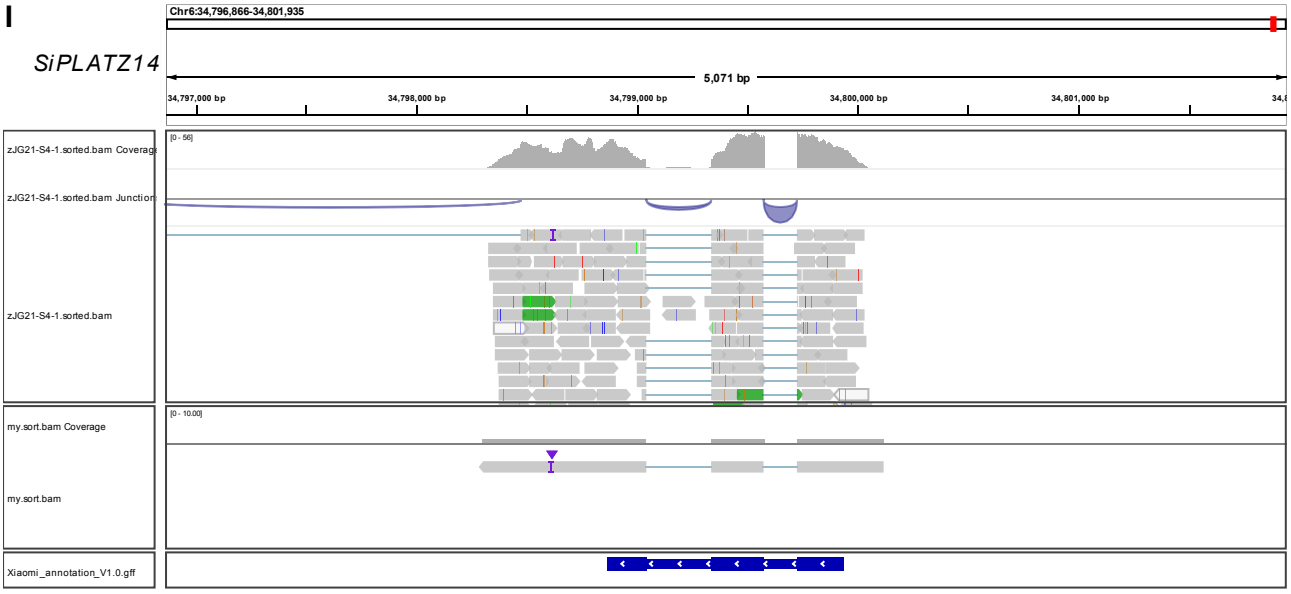
Xiaomi_annotation_V1.0.gff

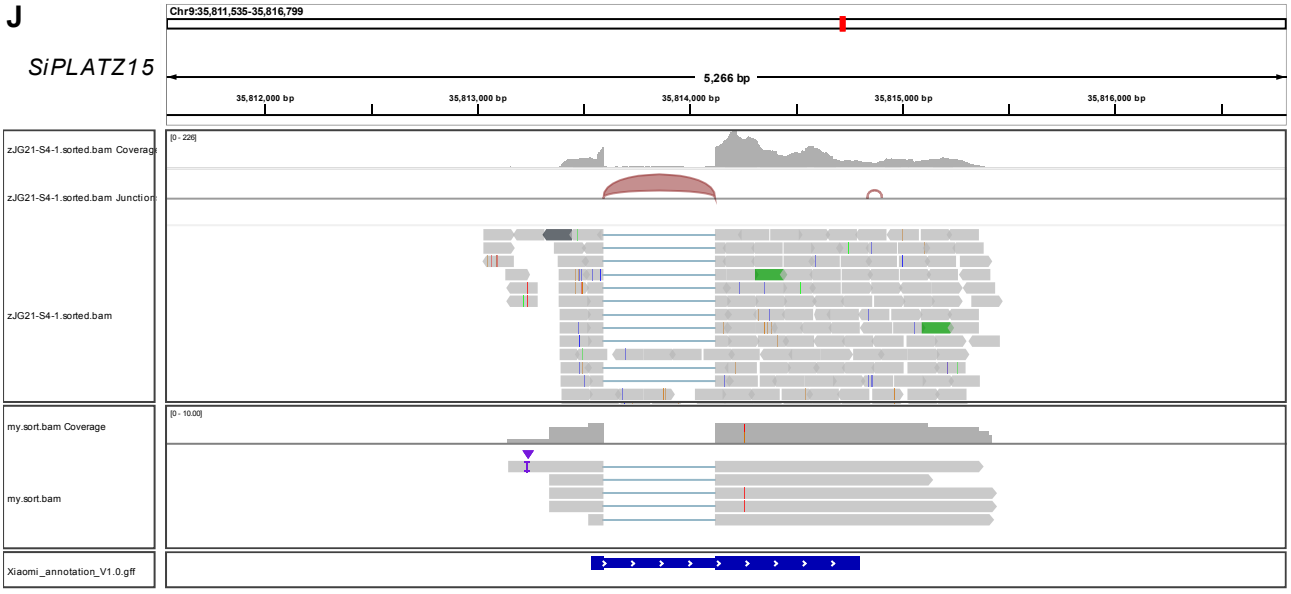
I

SiPLATZ14



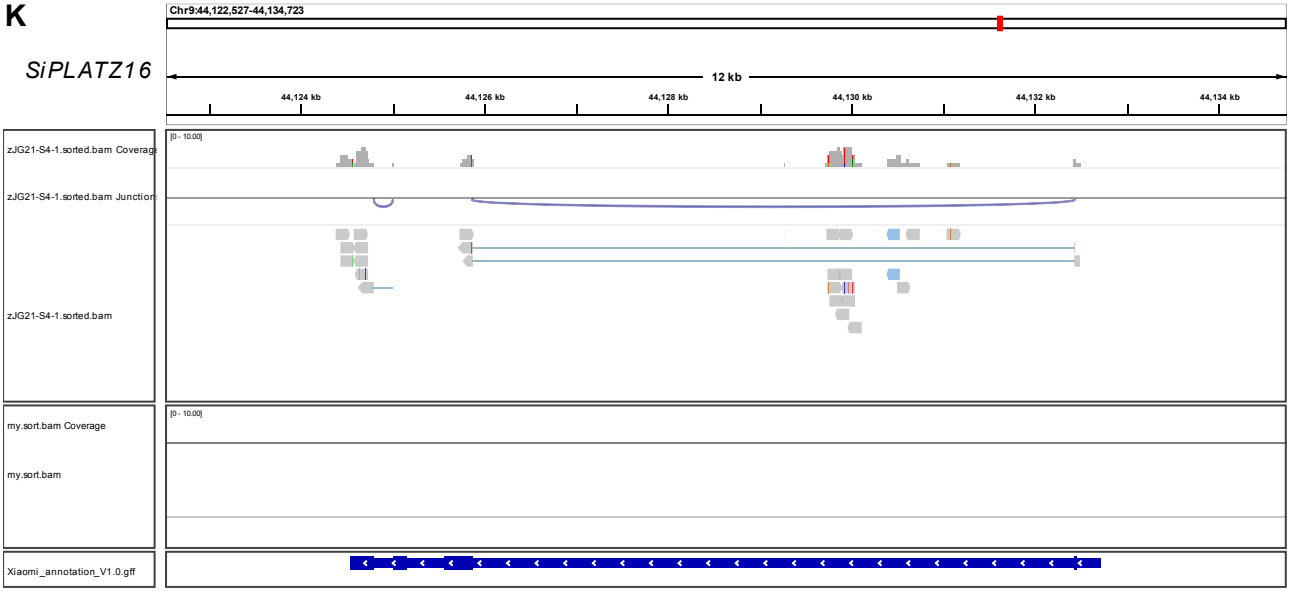
J

SiPLATZ15

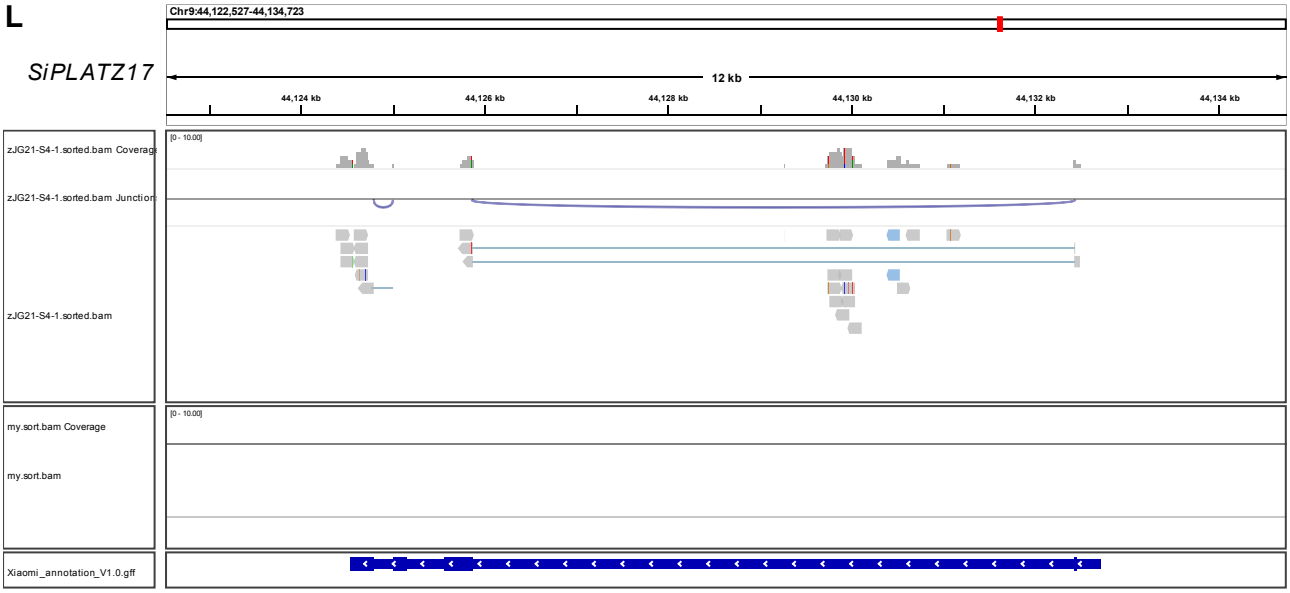


K

SiPLATZ16



L


SiPLATZ17
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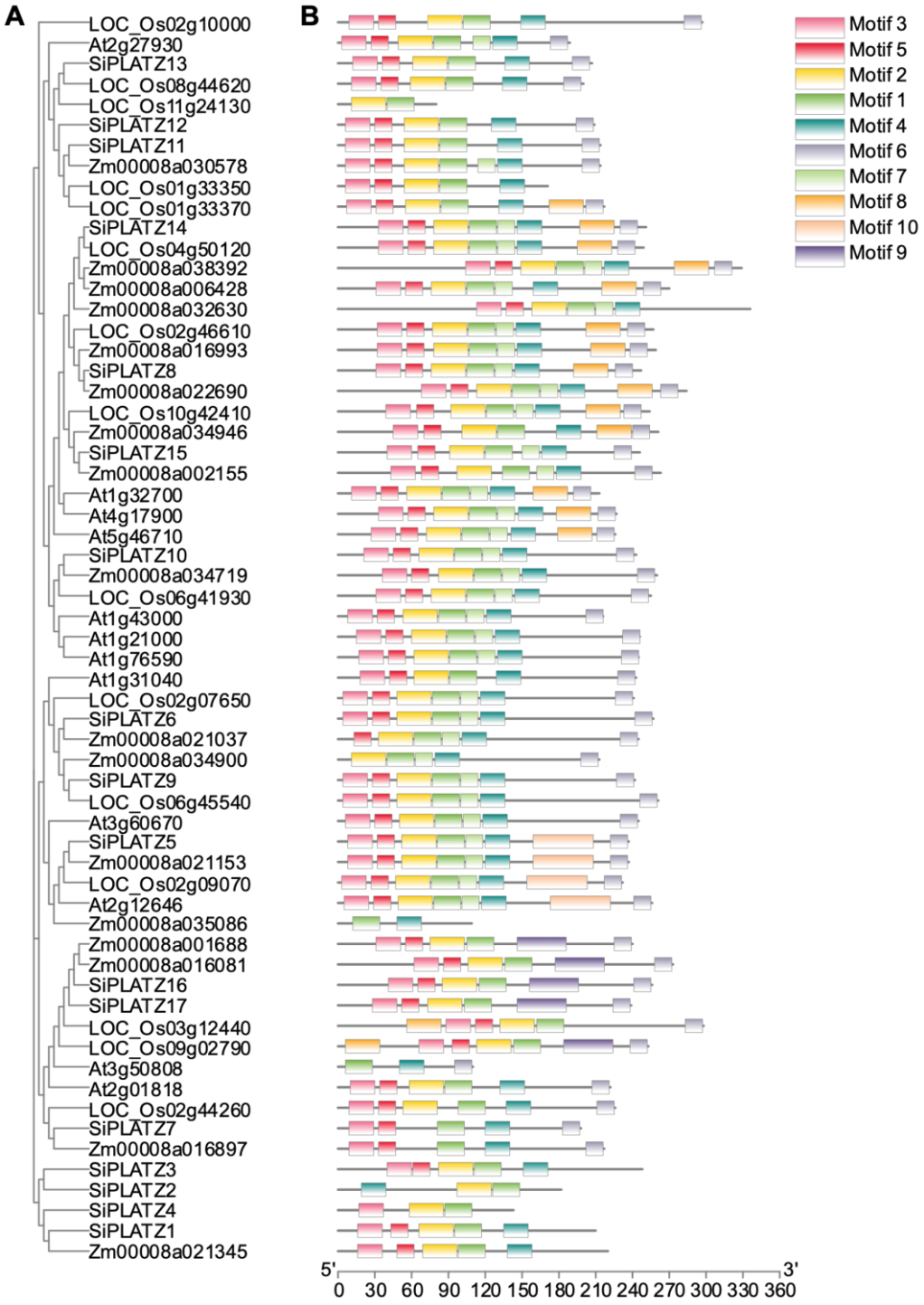
44,124 kb
44,126 kb
44,128 kb
44,130 kb
44,132 kb
44,134 kb
zJG21-S4-1.sorted.bam Coverage
zJG21-S4-1.sorted.bam Junctions
zJG21-S4-1.sorted.bam
[0 - 10.00]
my.sort.bam Coverage
my.sort.bam
[0 - 10.00]
Xiaomi_annotation_V1.0.gff

附图 2　谷子、水稻、玉米及拟南芥 PLATZ 成员蛋白保守基序的分析

Appendix figure 2　Analysis of conservative motifs of PLATZ member proteins in foxtail millet, rice, maize and *Arabidopsis*

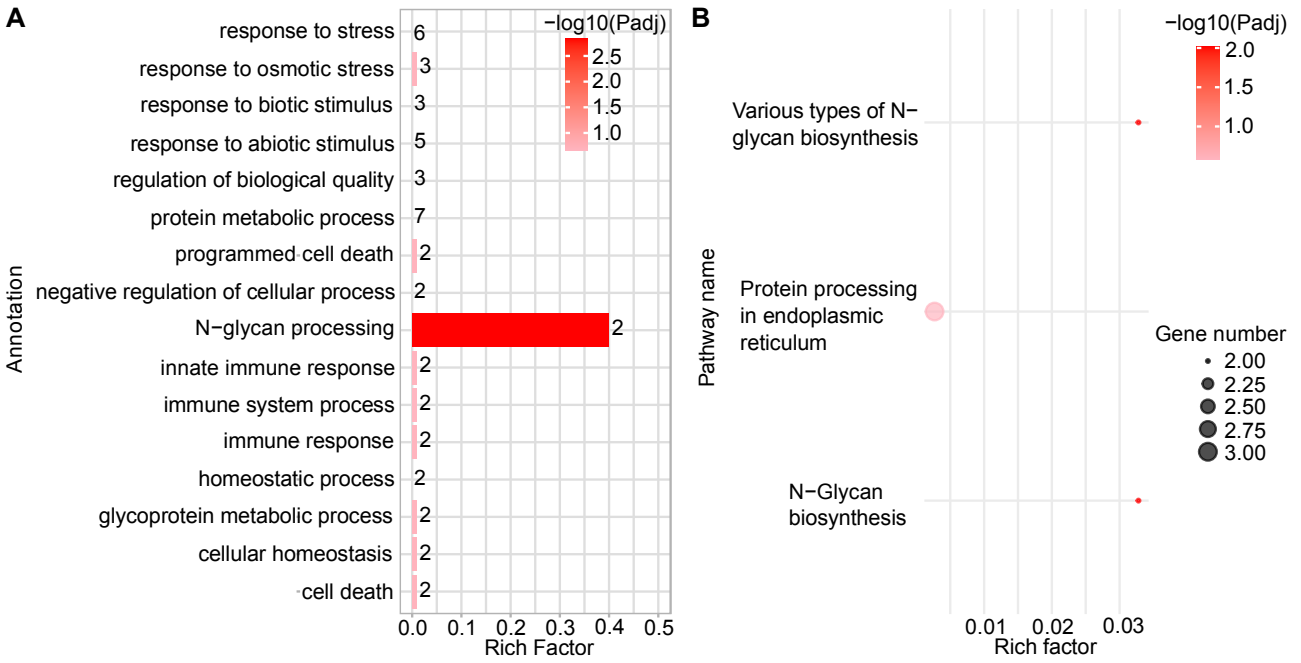


附图 3　核心基因及候选基因的富集分析

(A) WGCNA 分析中筛选到的核心基因及候选基因的 GO 富集分析; **(B)** 图 A 所述基因的 KEGG 富集分析

Appendix figure 3　Enrichment analysis of core genes and candidate genes

(A) GO enrichment analysis of the core genes and candidate genes selected in the WGCNA analysis; **(B)** KEGG enrichment analysis of the gene described in Figure A



附表 1 谷子 *SiPLATZ* 内参基因及基因引物序列

Appendix table 1 Foxtail millet *SiPLATZ* internal reference gene and gene primer sequence

Gene name	Forward Primer (5'→3')	Reverse primer (5'→3')
actin	TGCTCAGTGGAGGCTCAACA	CCAGACACTGTACTTGCGCTC
SiPLATZ8	ACTGAAGAGCAGATACGCCA	ACCCTGCATTGGACGAAGAA
SiPLATZ11	CCACCCATCGTGTAATCCAGA	GTTGTGGCCGCTCATTCAAG
SiPLATZ13	CTTCTGCTACTACTGCAGGGC	GTAGGACGACCGCCGTATCT
SiPLATZ14	GGACGAGCTTCTTCGGTCAA	CATGCAGTCGAGGCAGTACA
SiPLATZ15	CTTCGCGCATTGCAAGACC	GAGCAGTCGAGGCAGAACAT

附表 2 *SiPLATZ*s 基因功能注释

Appendix table 2 *SiPLATZ*s gene annotation

Gene name	Homologous genes in rice	Functional annotation	Homologous genes in *Arabidopsis*	Functional annotation
SiPLATZ1	*LOC_Os06g41930*	-	*AT1G21000*	-
SiPLATZ2	*LOC_Os08g44620*	-	*AT1G31040*	Leaf development, leaf senescence
SiPLATZ3	*LOC_Os06g41930*	-	*AT1G76590*	-
SiPLATZ4	*LOC_Os06g41930*	-	*AT1G32700*	-
SiPLATZ5	*LOC_Os02g09070*	–	*AT2G12646*	Controlling the size of root meristematic tissue through ROS signaling
SiPLATZ6	*LOC_Os06g45540*	Positive regulation of seed length by promoting cell proliferation in young spikelets and seeds	*AT1G31040*	Leaf development, leaf senescence
SiPLATZ7	*LOC_Os02g44260*	-	*AT3G60670*	
SiPLATZ8	*LOC_Os02g46610*	–	*AT1G32700*	–
SiPLATZ9	*LOC_Os06g45540*	Positive regulation of seed length by promoting cell proliferation in young spikelets and seeds	*AT1G31040*	Leaf development, leaf senescence
SiPLATZ10	*LOC_Os06g41930*	–	*AT1G21000*	–
SiPLATZ11	*LOC_Os01g33370*	–	*AT2G27930*	–
SiPLATZ12	*LOC_Os01g33370*	–	*AT1G32700*	–
SiPLATZ13	*LOC_Os08g44620*	–	*AT2G27930*	–
SiPLATZ14	*LOC_Os04g50120*	–	*AT1G32700*	–
SiPLATZ15	*LOC_Os10g42410*	–	*AT4G17900*	–
SiPLATZ16	*LOC_Os03g12440*	–	*AT1G31040*	Leaf development, leaf senescence
SiPLATZ17	*LOC_Os09g02790*	-	*AT1G32700*	-

附表 3 NG 法计算谷子、水稻、玉米、拟南芥基因组间 PLATZ 共线性基因对 K_a/K_s 值

Appendix table 3 Calculation of K_a/K_s values of PLATZ collinearity gene pairs among foxtail millet, maize, rice and *Arabidopsis* genomes by NG method

Homologous gene	K_a	K_s	K_a/K_s
SiPLATZ15-LOC_Os10g42410	0.12148	0.350379	0.346711
SiPLATZ7-LOC_Os02g44260	0.095379	0.260317	0.366397
SiPLATZ8-LOC_Os02g46610	0.075039	0.199872	0.375438
SiPLATZ5-LOC_Os02g09070	0.013117	0.641843	0.020437
SiPLATZ6-LOC_Os02g07650	0.130329	0.721211	0.180709
SiPLATZ3-LOC_Os02g10000	0.60642	0.968998	0.625822
SiPLATZ10-LOC_Os02g10000	0.428426	0.562291	0.76193
SiPLATZ14-LOC_Os02g46610	0.122855	0.31234	0.393338
SiPLATZ15-LOC_Os02g46610	0.252011	0.395571	0.637083
SiPLATZ8-LOC_Os04g50120	0.119133	0.360797	0.330194
SiPLATZ14-LOC_Os04g50120	0.029042	0.157149	0.184804
SiPLATZ6-LOC_Os06g45540	0.189408	0.736469	0.257184
SiPLATZ4-LOC_Os06g41930	0.465583	0.594374	0.783317
SiPLATZ9-LOC_Os06g45540	0.087487	0.583104	0.150037
SiPLATZ10-LOC_Os06g41930	0.080566	0.239379	0.336564
SiPLATZ13-LOC_Os08g44620	0.142008	0.40621	0.349593
SiPLATZ14-AT4G17900	0.290223	NaN	NaN
SiPLATZ15-AT4G17900	0.328928	NaN	NaN
SiPLATZ15-AT5G46710	0.41619	NaN	NaN
SiPLATZ8-Zm00008a006428	0.152703	0.341481	0.447178
SiPLATZ7-Zm00008a016897	0.085993	0.339236	0.253491
SiPLATZ8-Zm00008a016993	0.073893	0.192876	0.383113
SiPLATZ8-Zm00008a022690	0.05338	0.194422	0.274559
SiPLATZ1-Zm00008a021345	0.29915	0.748897	0.399454
SiPLATZ5-Zm00008a021153	0.016499	0.334079	0.049387
SiPLATZ6-Zm00008a021037	0.058668	0.366611	0.160029
SiPLATZ6-Zm00008a034900	0.189455	0.719328	0.263378
SiPLATZ4-Zm00008a034719	0.456281	0.719531	0.634137
SiPLATZ8-Zm00008a038392	0.16166	0.318863	0.50699
SiPLATZ9-Zm00008a021037	0.133463	0.402716	0.331406
SiPLATZ10-Zm00008a034719	0.050662	0.167994	0.301573
SiPLATZ9-Zm00008a034900	0.077104	0.216222	0.356597
SiPLATZ14-Zm00008a006428	0.04355	0.126731	0.343642
SiPLATZ14-Zm00008a016993	0.136133	0.425773	0.319731
SiPLATZ14-Zm00008a022690	0.1527	0.393806	0.387755
SiPLATZ14-Zm00008a038392	0.04535	0.113985	0.397862
SiPLATZ15-Zm00008a002155	0.051842	0.281149	0.184395
SiPLATZ16-Zm00008a001688	0.333856	0.765032	0.436395
SiPLATZ15-Zm00008a034946	0.037211	0.230986	0.161097
SiPLATZ16-Zm00008a035149	0.257015	0.837667	0.306823