

Table S3 Statistically valid Paired-end Reads

Type	Numbers
Clean Paired-end Reads	354,602,988
Unmapped Paired-end Reads	6,384,325
Unmapped Paired-end Reads Rate (%)	1.8
Paired-end Reads with Singleton	37,211,375
Paired-end Reads with Singleton Rate (%)	10.49
Multi Mapped Paired-end Reads	78,845,848
Multi Mapped Ratio (%)	22.23
Unique Mapped Paired-end Reads	232,161,440
Unique Mapped Ratio (%)	65.47
Dangling End Paired-end Reads	7,155,073
Self Circle Paired-end Reads	1,141,456
Dumped Paired-end Reads	32,546,220
Valid Paired-end Reads	189,737,921
Valid Rate (%)	81.73
Vailed reads of unique mapping(%)	53.51