

Capstone_FastQC

The tables below describe the percentage of reads mapped, average base quality score of total reads and average base quality score of mapped reads.

There are three adult samples and three fetal samples. Each sample has two runs, which indicate a technical repeat. And because this is a paired-end sequencing, for each run there are two FastQ files, one for left reads and the other one for right reads.

Fetal	Run	paired-end	reads mapped	avg base quality	avg quality of mapped reads
R3452	SRR1554537	left	97.9%	34.2800047183	34.2736082795
R3452	SRR1554537	right	98.5%	34.1842317891	
R3452	SRR2071348	left	84.0%	31.3450874655	33.7515017019
R3452	SRR2071348	right	78.8%	30.3636706811	
R4707	SRR1554567	left	98.6%	34.8899874068	34.4665264104
R4707	SRR1554567	right	98.1%	33.9878134021	
R4707	SRR2071378	left	90.5%	33.6217045574	34.1641469006
R4707	SRR2071378	right	81.9%	31.6860549647	
R4708	SRR1554568	left	98.5%	34.6001606695	34.1740185148
R4708	SRR1554568	right	98.2%	33.6930119784	
R4708	SRR2071379	left	85.7%	31.8689265851	33.8173821453
R4708	SRR2071379	right	79.8%	30.7255653398	

Adult	Run	paired-end	reads mapped	avg base quality	avg quality of mapped reads
R3098	SRR1554536	left	99.0%	34.5484413679	34.3806450171
R3098	SRR1554536	right	99.0%	34.1973263581	
R3098	SRR2071347	left	87.8%	33.6763748447	34.6763993604
R3098	SRR2071347	right	83.2%	32.0132001345	
R3467	SRR1554539	left	98.3%	36.3371257528	36.0217315932
R3467	SRR1554539	right	98.1%	35.6591317812	
R3467	SRR2071350	left	79.0%	32.7766130001	35.7171122727
R3467	SRR2071350	right	72.9%	31.3352945287	
R2857	SRR1554534	left	98.0%	36.2029266098	35.9582405742
R2857	SRR1554534	right	97.6%	35.6663622114	
R2857	SRR2071345	left	78.0%	32.6399891721	35.693785331
R2857	SRR2071345	right	72.8%	31.6693345526	

Q1. Do different age groups have different mapping rates and the average quality score of mapped reads?

A: Different runs have different mapping rates and the average quality score of mapped reads but the differences are not caused by whether the sample is fetal or adult.

Q2. Is the mapping rates similar for fetal and adult samples?

A: Yes, the mapping rates are similar with adult samples having slightly lower mapping rates.

Q3. Is there a trend in the average quality score of mapped reads?

A: Yes, the average quality score of mapped reads is higher than the left and right raw reads.